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ABSTRACT

Universities and colleges of advanced education in Austrialia were surveyed to determine their policies and practices in admitting and granting status to holders of TAFE (Technical and Further Education) middle-level certificates who wish to transfer to relevant higher education courses. Of the 90 higher education institutions that were approached, 35 responded. It was found that the majority of higher education institutions in Australia, including a number of universities, was prepared to admit students to courses on the basis of a successfully completed relevant TAFE middle-level course and that during the years 1980-1983, more than 15,000 students had availed themselves of that opportunity. It was also found that many higher education institutions are prepared to grant status to holders of TAFE middle-level certificates, but that the number of students who are actually granted status is quite small. No conclusions could be drawn from the information obtained in this study on the success of students with TAFE middle-level certificate backgrounds who have been admitted either with or without status to courses in higher education compared with students admitted in the traditional way, but, from the limited information available, such students seem to be reasonably successful. Recommendations were directed principally at obtaining more information on the performance in higher education of holders of TAFE middle-level certificates so that the current policies of the institutions might be liberalized further, and at ensuring that information concerning opportunities available to holders of TAFE middle-level certificates is readily available. (Author/KC)

TAFE National Centre
for Research and Development

ED265297

THE ARTICULATION OF TAFE MIDDLE-LEVEL AND HIGHER EDUCATION COURSES IN AUSTRALIA

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FOREWORD

The concept that education is an experience which can continue throughout life has influenced may older Australians to the extent that they are seeking entrance to higher education by means other than the traditional process of matriculation. Higher education institutions have recognised this change and many have introduced varying selection procedures to accommodate it.

Among the persons who might be expected to perform well in higher education institutions are those who have completed relevant TAFE middle-level Certificate courses (diplomas in Western Australia). Not only have they gained knowledge relevant to higher education courses, but also they have displayed motivation in completing what is usually a four year part-time course. In addition, parallel to their studies, these people have often gained industrial or commercial experience which is relevant to the higher education course in which they are interested.

In the complex matter of selection for higher education, there appears to be little information concerning the actual degree of articulation between TAFE middle-level (Certificate) and higher education courses. Therefore the TAFE National Centre for Research and Development decided that it would be helpful to collect what data are available so that the mechanisms of articulation can be understood better by all involved, particularly the universities and colleges of advanced education among whom an understanding of the mechanisms would be very helpful when considering their admission policies.

Accordingly the Centre commissioned a dual purpose project which was designed to—

- identify and classify the policies of universities and colleges of advanced education on the admission of holders of TAFE middle-level certificates, to identify the extent to which such students are admitted to relevant courses in universities and colleges of advanced education and to examine the success of students so admitted.

- identify and then classify the policies of universities and colleges of advanced education on the granting of status to holders of TAFE middle-level certificates, to identify the extent to which such students are granted status in relevant courses in universities and colleges of advanced education and to examine the success of students so admitted.

All universities and colleges of advanced education in Australia have been approached and this report has been prepared on the basis of the responses received.

In common with all commissioned project reports, the views expressed are those of the author and do not necessarily reflect the views of the Board or staff of the TAFE National Centre for Research and Development.

ABBREVIATIONS

AAC	Association of American Colleges
AACRAO	American Association of Collegiate Registrars and Admissions Officers
AAJC	American Association of Junior Colleges
AAVA	Authority for Advanced Vocational Awards
ABS	Australian Bureau of Statistics
AEC	Australian Education Council
AIB	Australian Institute of Building
ANU	Australian National University
ASAT	Australian Scholastic Aptitude Test
AUC	Australian Universities Commission
AVCC	Australian Vice-Chancellors' Committee
BEC	Business Education Council
CAAT	College for Applied Arts and Technology
CDTAFE	Conference of Directors of Technical and Further Education
CEGEP	Colleges d'Enseignement General et Professionel (Colleges of General and Vocational Education)
CNAA	Council for National Academic Awards
CPEP	New York State College Proficiency Examinations Program
CTEC	Commonwealth Tertiary Education Commission
DDIAE	Darling Downs Institute of Advanced Education
DEYA	Department of Education and Youth Affairs
DFE	Department of Further Education
DTAFE	Department of Technical and Further Education
ECCTIS	Education Counselling and Credit Transfer Information Service
FAUSA	Federation of Australian University Staff Associations
GCE	General Certificate of Education
HFE	Higher and Further Education
HSC	Higher School Certificate
IAA	Institute of Affiliate Accountants
ILO	International Labour Office
MAU	Mature age unmatriculated
SACAE	South Australian College of Advanced Education
SAIT	South Australian Institute of Technology
SATAC	South Australian Tertiary Admissions Centre
SCORITE	Standing Committee on Relationships in Tertiary Education
SCOTBEC	Scottish Business Education Council
SCOTEC	Scottish Technical Education Council
SES	Special Entry Scheme
TAFE	Technical and Further Education
TCAE	Tasmanian College of Advanced Education
TEASA	Tertiary Education Authority of South Australia
TEC	Technician Education Council
TED	Technical Education Division
TOP	Tertiary Orientation Programme
UNESCO	United Nations Educational and Scientific Organisation
WAIT	Western Australian Institute of Technology
WAPSEC	Western Australian Post Secondary Education Commission

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ABSTRACT

Universities and colleges of advanced education in Australia were surveyed to determine their policies and practices in admitting and granting status to holders of TAFE middle-level Certificates who wish to transfer to relevant higher education courses. Of the 90 higher education institutions which were approached, 35 responded.

It was found that the majority of higher education institutions in Australia including a number of universities was prepared to admit students to courses on the basis of a successfully completed relevant TAFE middle-level course and that over the years 1980-1983 more than 15,000 students had availed themselves of that opportunity.

It was found also that many higher education institutions are prepared to grant status to holders of TAFE middle-level Certificates, but that the number of students who are actually granted status is quite small.

No conclusions could be drawn from the information obtained in this study on the success of students with TAFE middle-level Certificate backgrounds who have been admitted either with or without status to courses in higher education compared with students admitted in the traditional way. What can be said is that, from the limited information available, such students seem to be reasonably successful, and, that many institutions are admitting and giving them status. If the performances of these students were demonstrably poorer than those of their contemporaries with traditional entrance qualifications, then it would be expected that the institutions themselves would be tending to tighten their admission policies.

A number of recommendations is made. These are directed principally at obtaining more information on the performance in higher education of holders of TAFE middle-level Certificates so that the current policies of the institutions might be liberalised further and at ensuring that information concerning opportunities available to holders of TAFE middle-level Certificates is readily available.

CHAPTER 1

INTRODUCTION

> Technical and vocational education should be so organised that every person can continue his education until his potentialities have been developed to the full. Transfer from one field of technical and vocational education to others should be possible, and access to all levels of both technical and vocational education and general education should be open to any capable person. Appropriate measures for making such access possible should be taken (UNESCO/ILO, 1964, para 14).

There has been much discussion in recent educational literature on the questions of access to education and of the status given by one institution to study and experiences gained in another. The process of achieving access and status may be called 'articulation' which Hermann (1971) described as 'the connectedness between the disparate or partially disparate courses or sectors of a comprehensive education system' (p. 2). Less formally, Vermilye (1976) called it 'a process of fitting the piece we call the individual to the puzzle we call the system' (p. 589).

In the tertiary education sector the practices discussed in the literature range from unlimited access to courses, with the opportunity to transfer credits freely from one institution to another, to access restricted to holders of very specific entrance qualifications with practically no opportunity for credit transfer.

It is possible that, if the admission and status (i.e. advanced standing or exemption) policies of universities and colleges of advanced education (i.e. institutions of higher education) recognised formally the full achievements of students who had completed TAFE middle-level certificates, those institutions would have access to a pool of students who, if admitted or granted status, would have a more than reasonable chance of success.

This possibility is examined in this dual-purpose project which is designed

- to identify and classify the policies of universities and colleges of advanced education on the admission of holders of TAFE middle-level certificates, to identify the extent to which such students are admitted to relevant courses in universities and colleges of advanced education and to examine the success of students so admitted.

- to identify and then classify the policies of universities and colleges of advanced education on the granting of status

to holders of TAFE middle-level certificates, to identify the extent to which such students are granted status in relevant courses in universities and colleges of advanced education and to examine the success of students so admitted.

In this paper, relevant courses in universities and colleges of advanced education are defined as courses in disciplines related to those provided by the TAFE institutions; for example, a TAFE Certificate in Accounting relating to a Bachelor of Business in a higher education institution.

Not all institutions of higher education restricted their consideration of TAFE qualifications to relevant courses in the tight way in which they are defined in this project. Consequently the discussions in this paper are often wider than originally defined.

It is suggested that formal recognition of the full achievements represented by TAFE middle-level qualifications by universities and colleges of advanced education can be expressed in a credit transfer system. Such a system is defined in Chapter 2, where the rationale and the general issues which need to be resolved in establishing a credit transfer system, are examined also. Chapter 2 also contains a short section on overseas experience in credit transfer systems.

The background, as revealed in the literature, to that part of the first purpose of the study related to entry to higher education from TAFE, is discussed in Chapter 3. Material relating to experiences in the United Kingdom, United States, Canada, and New Zealand is presented with a view to developing recommendations by relating this material to current Australian practice. Chapter 4 embraces a similar discussion of the second purpose of the study. In neither Chapter is the question of the success of students who either enter higher education, or, who are granted status on a TAFE qualification, discussed. This issue is discussed in Chapters 8, 9, and 10.

In Chapter 5 some models for articulation and the environment necessary for successful articulation are considered. The concept of an articulation agreement is developed also. The methods by which information about the Australian position was obtained are presented in Chapter 6.

The current situation with regard to any articulation agreements between TAFE and higher education which exist in Australia is outlined in Chapter 7.

Chapters 8, 9 and 10 are similar in format.

The first purpose of the study and two aspects of the second purpose are addressed in Chapters 8, 9 and 10 respectively.

In Chapter 9 the status given to and the success of students who have undertaken relevant TAFE middle-level courses, and, who have matriculated in the conventional way, are discussed.

In Chapter 10, the status given to and the success of students who have used their TAFE middle-level courses as qualifications for admission, are discussed.

Each of Chapters 8, 9 and 10 were originally planned to have five sections addressing separate issues but in some cases, there was insufficient information available to address each issue.

These sections are

- the policies of the various higher education institutions. These policies are classified as follows:

  - general acceptance of TAFE courses for entrance or status
  - limited (or provisional) acceptance
  - no acceptance
  - no policy;

- the student demand for the use of a successfully completed TAFE middle-level course as a qualification for entrance or status;

- the extent to which students who have applied for admission or status on the basis of a successfully completed TAFE middle-level course are accepted. There is a discussion of research into the selection methods for higher education courses;

- the actual number of students who had enrolled in, or, who had been granted status in higher education courses on the basis of TAFE middle-level certificates;

- the success of students who had enrolled in, or, who had been granted status in higher education courses on the basis of TAFE middle-level certificates. There is a discussion of previous research into the success of entrants into higher education courses who have non-traditional entrance qualifications.

The results of the investigations are discussed in Chapter 11. Judgments are made on the adequacy of current policies on the basis of those discussions and consequent recommendations made.

CHAPTER 2

A CREDIT TRANSFER SYSTEM

2.1 DEFINITION OF A CREDIT TRANSFER SYSTEM

Skull (1982) defined a credit transfer system as one which involves exemption from course admission pre-requisites, access to courses, or exemption from a proportion of a course in recognition of previous relevant study.

By credit, Skull meant an acknowledgement of merit in quantifiable terms.

2.2 THE RATIONALE OF A CREDIT TRANSFER SYSTEM

The rationale for the operation of some transfer of credit system from TAFE middle-level to higher education includes the provision of:

- a means of access to higher education institutions for students who did not perceive higher education as an option when they left school (CTEC, 1983);
- an opportunity for students to complete courses in tertiary education in the minimum time consistent with the attainment and maintenance of appropriate standards; and without having to repeat academic work undertaken already (Skull, 1982);
- an opportunity for students to take a variety of routes in order to reach a particular educational destination without any one route taking longer than another (Skull, 1982);
- a means by which higher education institutions might reach non-traditional students (Holgate, 1980).

In a reference to South Australia which could well apply to the whole country, Moriarty (1978) summed up the situation as follows:

> As long as the South Australian postsecondary system maintains a discontinuous spectrum of institutions . . . there will be the need to allow transfer between sectors for persons who wish to broaden their education (p. 14).

2.3 THE ISSUES TO BE RESOLVED IN ESTABLISHING A CREDIT TRANSFER SYSTEM

Accepting that there is a rationale for a credit transfer system, there are still issues which would have to be resolved if one were to be established.

2.3.1 Issues related to entrance

Skull (1982) pointed to a problem of credit which is particularly relevant to the acceptance of TAFE middle-level courses as sufficient qualifications for entrance to higher education courses, when he asked:

> . . . has a student who completed year 11 of secondary education and has then completed two years of a 3 or 4 year part-time Department of Technical and Further Education certificate course reached an equivalent intellectual standard to a student who has completed year 12 of secondary education and has usually matriculated? (p. 8).

This problem was discussed in the Ministerial review of post-compulsory schooling published recently in Victoria (Blackburn, 1984). The co-ordinating committee for the review noted that continuing controversy persisted over whether TAFE Certificate courses could be considered as being equivalent to Year 12 studies undertaken in schools. While unable to determine whether they were equivalent, the committee considered that the two courses were parallel, because they both required common formal pre-requisites for entry, were pre-tertiary and offered pathways to employment and further study.

The problem had been raised earlier by Moriarty (1978) who noted that a considerable process had to be undergone before a qualification was accepted and that the onus of proof with regard to standard rested with the student. The very existence of what could be a complicated procedure, where there may be few fixed guidelines, creates a major problem.

2.3.2 Issues related to the granting of status

Moriarty (1978) and Mathers (1981) referred to what they called the transfer/terminal dilemma, while Hermann, Richardson and Woodburne (1976) addressed what they have called 'escalation versus intrinsic entity'.

The problem as stated by Moriarty is whether it is possible to offer a terminal course leading to a qualification which is tailor-made for the needs of a particular job, while at the same time allowing for those who may wish to transfer to a higher level of study. The terminal course may lose creditability for a job qualification in its own right if it is designed and arranged to facilitate transfer of credit to other courses designed primarily for a higher level job.

Skull (1982) saw it as inevitable that there would be always two sorts of TAFE courses. One sort would be self-contained and end-stopped in that, as Anderson (1979) described them, they would be designed to impart particular vocational competencies and have highly integrated structures which did not lend themselves readily to transfer of credit. The others would be prospective ladder-step sequential courses, where the student would be able to proceed to higher education in a planned and orderly manner.

Hermann et al. agreed with Moriarty's statement of the problem to the extent that they saw that, in attempting to make one course serve two disparate functions, there could be a tendency for what they called 'schizophrenic breakdown'. But they maintained that it was necessary to ensure that there was always the opportunity for people to proceed to a more advanced course. This required good articulation between relevant pairs of courses.

In the view of Hermann et al., the deliberate physical separation in Australia of the higher education institutions from the TAFE system has had an adverse effect on articulation. They noted that, in the United Kingdom, the polytechnics were obliged to offer a full range of senior technician courses in addition to their degree courses for technologists. Articulation through bridging courses and other procedures could be achieved more easily in these circumstances.

Nevertheless, a suitable scheme which could involve the admission of TAFE Certificate course graduates to related professional courses with relevant exemptions and/or relevant bridging courses should be possible. This could be achieved by allowing the two institutions to retain their own integrity, while at the same time identifying the similarities and differences between their courses and allowing for these in developing a transfer of credit system.

Skull (1982) pointed to further issues in regard to status. The higher education institution in its investigations would need to estimate to what extent a TAFE course would overlap the higher education course in terms of its conceptual complexity and to make a judgment about the likely future success of the transfer applicant.

This judgment is not without its difficulties. Sloan and Farrelly (1979) reported on a program conducted by the Northern Illinois University which allowed students to transfer from community colleges without loss of credits. In evaluating the program, the University found that, immediately after transfer:

- the retention rate for transfer students was lower than for others,
- the academic performance of transfer students was lower.

However, with regard to the latter difficulty, the difference in academic performance decreased over time (perhaps because the less successful discontinued).

2.3.3 General issues related to autonomy

Transfer of credit issues involve both the autonomy of the institution and of the teachers within these institutions.

a) The institution

Both Anderson (1979) and Mathers (1981) saw problems in any transfer of credit system in that there was a possibility of such a system impinging on the autonomy of the institutions involved.

Anderson suggested that academic freedom requires that institutions should not be subject to outside direction on the selection of students, details of course content or standard of awards. He suggested further that the freedom to select students (and therefore independence from external rules in granting credits) was needed to maintain a distinctive institutional philosophy.

Such an argument might be persuasive for some and is perhaps defensible in a privately funded institution, but it would seem to have no place in a publicly-funded institution if seen by the public as inhibiting the access of suitable students to educational opportunity. Academic freedom does not mean licence to favour one sort of student against another on the grounds that the other does not fit the self-developed philosophy of the institution.

Mathers saw the problem of institutional autonomy affecting credit transfer in rather a different way. He saw the current differences in course descriptions between the sectors as a barrier to curriculum co-operation and development and, as a basis for portability of attainment, he proposed that the purposes of courses be stated clearly and that their content be based upon recognisable vocational needs. He saw academic freedom in institutions of higher education as an impediment to reaching such clarity.

b) The teachers

Fowler (1979) said that the pressure on teachers to accept the qualifications of students taught essentially the same course elsewhere and at another time was often seen by the teachers who were expected to accept them, as threatening their traditional autonomy. To impose externally on these teachers a statement of rules by which they should abide would not solve the problem of their seeing their traditional autonomy as being threatened; the real solution lay in devising a means by which a change could be made in their attitude.

2.4 OVERSEAS EXPERIENCE IN CREDIT TRANSFER SYSTEMS

Any credit transfer system is a product of the education system within which it operates and as such has its own peculiar characteristics. Cerych and Furth (1971) in looking at the higher education systems of the Western world identified three models:

a) The English model

This constitutes an extreme of separation between the university and non-university sectors of higher education. In each sector, studies of the same duration lead to identical degree levels. There is practically no mobility between institutions nor between the two sectors.

b) The American model

This is characterised by a rather wide range of institutions from junior or community colleges to prestigious private universities. The administrative and legal links between these various institutions are, in general, very loose, yet, according to Cerych and Furth, the system possesses a high degree of unity. In particular, on paper at least, it allows students to move relatively easily from one institution to another.

c) The Continental European model

This consists of two main sectors: universities and other post-secondary establishments. The duration of studies in the former is considerably longer than in the latter and there is a rather significant difference between the prestige value of the degrees conferred in the two sectors. Student mobility between them is nil or negligible and curricula have a different orientation: more abstract and theoretical in the one, more practical and vocational in the other.

None of the above models is the one which exists in Australia; rather, elements of each can be identified. For example, the English model is reflected in Australia in bachelor degrees in the same disciplines (e.g. electrical engineering) being offered by universities and colleges of advanced education; the American model by the provisions for transfer made by some higher education institutions; and the Continental model by the perceived difference in status between degrees in the same disciplines in universities and some colleges of advanced education.

It follows then that no characteristic of any overseas credit transfer system is necessarily applicable to Australia, yet because of the existence of similar elements in the education systems, it may be possible to learn from overseas experience.

In the two chapters which follow, some overseas credit transfer systems are described as perhaps offering one basis for recommending a system suitable to the Australian education system.

CHAPTER 3

TRANSFER OF CREDIT SYSTEMS RELATED TO ENTRY IN AUSTRALIA AND OVERSEAS

3.1 INTRODUCTION

One aspect of the present approach to the question of access to higher education in Australia is the frequently unnecessary and arbitrary entrance requirements of some institutions which limit admissions almost exclusively to people with traditional school-based matriculation. These requirements may impede the movement between different educational institutions of potentially successful individuals who have qualifications different from those normally required for entry and are the reason for this investigation into the need for a system to enhance transfer of credit related to entry.

In addition there have been pressures for change. In its submission to the Committee of Enquiry into Post-Secondary Education in South Australia (Anderson Committee), quoted by Moriarty (1978), the Federation of Australian University Staff Associations (FAUSA) described what it called the 'linear' nature of the present education system as presenting many problems to the free progress of students through the system. If the linearity of the system is to be broken, then re-entry options must be provided when these are appropriate.

The Australian Union of Students in its submission echoed the views of FAUSA although the tone was perhaps a little more assertive. The Union claimed that, in some situations, universities refused to acknowledge courses successfully completed by students in TAFE institutions and it 'demanded' that students from any institution should be able to transfer to any other institution and be fully accredited for all courses completed.

In general, therefore, there was agreement between unions of both university staff and students that some better approach was needed to the question of studies successfully completed in one institution being recognised in another.

3.2 OVERSEAS EXPERIENCE

3.2.1 United Kingdom

Fowler (1979) posed a fundamental two-part question on entrance to higher education courses which he saw as requiring resolution:

> . . . should we [the United Kingdom] move towards a system of "open access" to higher education on the American pattern?

> If not, is performance in GCE [General Certificate of Education], its successor or its equivalent, to remain as the entry ticket to higher education for most students, or should there be a wide range of alternatives? (pp. 55-56)

Observation of current practice suggests that the answer to both parts of this question is 'no' in that, while open access on the American pattern is not an acceptable option in the United Kingdom, neither is performance at secondary school examination acceptable as the only entry ticket to higher education; that is, the entrance options available should be wide, but not to the extent common in the United States.

For example, Lancaster University, Nelson and Colne College, and some other colleges in the north-west of England have been experimenting with an alternative to 'A' levels (i.e. matriculation) for adult students. This alternative has been designed ultimately to lead students to higher education.

There have been developments also in courses which correspond to TAFE middle-level courses. The 1977 Annual Report of the Council for National Academic Awards (CNAA), which is the degree awarding body serving the non-university sector of higher education, reported on discussions which took place in that year between the CNAA and the Technician Education Council (TEC) about the acceptability of the then new TEC awards as entrance requirements to CNAA courses. TEC awards are broadly the equivalent of TAFE middle-level Certificates in Australia. It was agreed that a TEC Certificate or Diploma with better than average results would meet the entry requirements for a CNAA course.

By 1979 this policy had been extended to cover awards of the Business Education Council (BEC), Scottish Business Education Council (SCOTBEC) and the Scottish Technical Education Council (SCOTEC) (CNAA, 1983). But at that time knowledge and experience of the new awards were very slight and consequently policy has been modified as a result of experience. In August 1983 the CNAA accepted BEC and composite BEC/TEC National Certificates or Diplomas at pass level and the TEC Certificate or Diploma in the fields of science or technology at merit level as meeting the normal minimum entry requirements for degree courses. SCOTEC and SCOTBEC Certificates or Diplomas were to be dealt with on an individual basis. In addition, the CNAA reminded institutions of their discretionary powers to admit individual students to any course.

The CNAA also has approved courses leading to the award of a CNAA Certificate for students who have completed successfully programs of study at sub-degree level. Some of these have been devised to give mature students access to degree courses.

As early as May 1977 the CNAA had stated that there was a case for a National Transfer Agency. This view had developed from a growing awareness of the need to make the range of courses provided within the higher education system more accessible to potential students. The Agency would collate and make available information about the accessibility of courses.

In July 1977, a meeting of all interested parties in the United Kingdom was held under the chairmanship of the Minister of State for Higher Education for the purpose of discussing what action should be taken in regard to the issues of credit transfer. The meeting resolved that a study should be undertaken into the feasibility of establishing a central information service.

The terms of reference of the feasibility study are quoted by Robbins (1980):

> To advise on the necessity, feasibility and cost of establishing and running a service for recording and providing information on credits which are being given by academic and professional institutions in the United Kingdom, towards further and higher education qualifications, in respect of previous studies undertaken by students (p. 61).

The report Educational credit transfer: Feasibility study was published in mid-December, 1979. In it credit transfer was defined as follows:

> In the context of access to Higher and Further Education (HFE), credit transfer is a process whereby qualifications, part-qualifications and learning experiences are given recognition (or credit) to enable students to progress without having to repeat material or levels of study, to transfer from one course to another, and to gain further educational experience and qualifications, thereby contributing to the maximisation of accumulated educational capital (Toyne, 1979, p. 1).

The working party found that provision was made in fact for the consideration of alternative qualifications for initial entry to courses in almost all forms of post-secondary education and that 'open entry' was characteristic of the courses offered by the Open University. In almost all cases, applications for admission were considered on their individual merits and, where more formal arrangements had been made, they were advisory rather than mandatory and each case was still considered individually.

The report recommended the development of a register which would identify the alternative qualifications which were acceptable for entry to higher education courses.

The demand for the identification of alternative qualifications acceptable for initial entry to courses existing at the time the report was prepared was in itself seen as a justification for the establishment of an information service. In 1979 about 15% of applications and 11% of admissions to university first degree courses were students offering alternative qualifications; in the polytechnics the applications and admissions for such students were about 20% in both cases.

The possibilities for the future were seen as even greater. It was predicted that the demand for entry to higher education through alternative qualifications would increase and that the need to improve the availability of information would be even more pressing.

The then Secretary of State decided that interested bodies should be consulted to establish the extent of their support for the recommendation of the report (Frogbrook, 1984). The response indicated sufficient support to proceed.

In May, 1982, the Department of Education and Science invited tenders for a research and development program to design and test, on a pilot scale, a computerised Education Counselling and Credit Transfer Information Service (ECCTIS). The word 'counselling' was added to the title to reflect better the nature of the information to be provided by the service.

With regard to entry, the service was required to provide:

- essential information about courses available in a particular area of study, together with normal minimum qualifications for entry;

- similar information about courses for which particular optional qualifications and part-qualifications had been accepted for entry;

- for those students leaving courses before completion, information about other courses for which the students' part-qualifications might be acceptable for entry.

The outcomes have not been quite what were envisaged by the original study. There has been considerable concern in the pilot study about the balance between service for general counselling purposes and for credit transfer. It was felt that the collection of alternative entry data would take time due to the need for it to be more detailed and historical, whereas the general course information was more readily available and less controversial. It was claimed that the establishment of basic course records were, in any case, a prerequisite for a credit transfer information service and that details of normal entry requirements formed a necessary part of such a service. Accordingly, the emphasis has been almost entirely on the aim of providing essential information about courses available in a particular area of study, together with normal minimum requirements for entry.

Judging from the original emphasis of ECCTIS it may appear that the principal aim of the whole exercise is in danger of being lost. A project which had its origin in the increasing number of students who were seeking entry to higher education through alternative routes, mainly using further education qualifications (ECCTIS, January 1984), is concentrating on collecting information about normal minimum qualifications for entry. However, compilation of information about alternative credit transfer arrangements and possibilities is beginning (ECCTIS, June 1984).

3.2.2 United States

Before discussing admission criteria for higher education in the United States, it is necessary to have some understanding of the system. For example it is necessary to distinguish between the terms 'college', 'university', and 'community college'.

The terms 'college' and 'university' are used often interchangeably, although the former often is but part of the latter. An American college typically offers a blend of natural and social sciences and humanistic studies leading to a bachelor degree in arts or science. A university, on the other hand, is usually composed of an undergraduate college of arts and science, plus graduate and professional schools.

Another institution of higher education is the two-year junior college, or community college.

Parkinson (1976) stated that the community college had become the most important source of post-secondary occupational training for adults (TAFE) in the United States. The courses are designed to meet the requirements of those who desire to enter the sub-professional areas of industry, business and the public service. Their primary function is to provide the educational experiences which best meet the needs of students and to correlate these needs with those of industry and commerce.

The common outcome of vocational and technical training in the community college is the associate degree in either science, arts or applied science. These courses are two year full-time post-secondary and correspond somewhat to the associate diploma (UG3) award in Australia.

Although the common outcome of the vocational and technical training is the associate degree, there are more and more short-term occupational training programs designed to meet the specific needs of adults in the community. Most community colleges provide programs leading to certificates. These programs are often selections from associate degree programs with an emphasis on their more vocational aspects.

Students may move from certificate to associate degree to higher education courses. This is only one aspect of what is, in effect, an open-door policy to educational opportunity in community colleges for all beyond normal high school age.

3.2.3 Canada

The Commission on Educational Planning in Alberta (Worth, 1972) noted that transferability of students from one institution to another had been a serious issue in Canada for many years. The continuing controversy surrounding the issue had had an unfortunate bias which had emphasised the rights of the institution rather than those of the student; that is, the question of institutional autonomy and the right of an institution to maintain a distinctive institutional philosophy had tended to be seen as paramount. This view of institutional

autonomy is similar to that which Anderson (1979) suggested should be accepted for the Australian situation, and which is questioned in this present paper (Section 2.3.3(a)).

Worth saw that, because of the growing commitment to lifelong learning, it was imperative for barriers to be minimised, if not eradicated. This ideal could be achieved only by the creation of a smooth and systematic method of credit transfer.

With regard to entrance to higher education institutions (what he called inter-level transfers), Worth saw the changes in educational practice being developed at that time in Alberta as serving to broaden the relatively narrow admission requirements which existed in institutions of higher education.

3.3 AUSTRALIAN PRESSURES FOR A TRANSFER OF CREDIT SYSTEM RELATED TO ENTRY

In Australia the matter of entry requirements to higher education other than formal matriculation has been the subject of much discussion. The literature shows that the discussion has been going on for many years.

3.3.1 Maddox

Maddox (1970) undertook a study of students entering applied science in colleges of advanced education. He noted that it was then official policy to keep college entrance requirements flexible and that the entrants at that time included students from technical colleges who had taken certificate courses.

3.3.2 Anderson, Batt and Rosenberg

In 1976 Anderson, Batt and Rosenberg, in their evaluation of the Darwin Community College, noted that the formal entry requirements to the higher education courses of the college would bar effectively a majority of the community from enrolling in most courses. They also noted that the ideal of easy vertical movement within the college had not been realised.

They commented on the common difficulty in Australia of gaining access to higher education if the prior educational experience had been in the vocational education area. One barrier to this transition had been that vocational training and tertiary studies had often been conducted in separate institutions. In Darwin there was an opportunity to break down these barriers and to make movement between the levels easier. In this area Anderson et al. said the Darwin Community College had still to prove itself.

3.3.3 Anderson

The South Australian Department of TAFE in its submission to the Anderson Committee (DFE 1977) claimed that far too often educational institutions became rather possessive of their students. They raised barriers and difficulties which prevented students from transferring from one institution to another.

Barriers of this kind were seen as incompatible with a genuine commitment to recurrent education.

3.3.4 Poverty Commission

In 1976 the Poverty Commission (Fitzgerald, 1976) reported on access to tertiary education.

Research conducted by the Commission indicated that universities in general were not anxious to explore the possibility of significant changes in their traditional methods of operation, and, in particular, concepts, such as wider acceptance of transfer of credit from other institutions, were not well received.

The Commission recommended that the Universities Commission, in consultation with State education departments and university representatives, should establish a committee to examine pre-requisites for each university faculty. The aim was to establish more flexible criteria for the assessment of prospective students.

The committee, as recommended by Fitzgerald, was never established. However, in February 1984, the Australian Vice-Chancellors' Committee (AVCC) set up a Steering Committee on University Entry Requirements under the Chairmanship of Professor D.R. Stranks with the following terms of reference (inter alia):

- to report on the present position in each State and the A.C.T.;

- to identify and comment on possible criteria for determining university entry for different categories of students (Hambly, pers. comm., 1984).

3.3.5 Moriarty

In 1978 Moriarty prepared an occasional paper on credit transfer for the Anderson Committee. The paper gives the impression that credit transfer was in reality far from the minds of the administration of higher education institutions and that, as a result, the mechanisms were deliberately and unnecessarily complex. It would be expected that if transfer were a recognised alternative means of entry to higher education (and Moriarty claims that it was not), then the machinery would be no more difficult than it is for 'normal entry' students.

As an example of the difficulties which were placed in the way of successful TAFE students, Moriarty cited the submission to the Anderson Committee of the Australian Society of Accountants on the situation of members of the Institute of Affiliate Accountants (IAA) (a membership achieved by successful completion of a TAFE middle-level Certificate) who applied for entry to the BA (Accounting) at the South Australian Institute of Technology (SAIT) in 1977. He reported the claim of the Society that only ten of the twenty applicants were accepted because quotas favoured direct-entry matriculants from school. It was not reported what proportion of other applicants was accepted.

In judging whether this rate of acceptance was good or bad, it must be understood that, leaving aside the fact that in this instance the rate of acceptance between groups could not be compared, the SAIT regulations at the time did not provide specifically for holders of the above certificate to qualify for admission. They merely allowed for them to be given consideration.

As an aside, it is worth noting that Moriarty reported that the performance of IAA qualified students in the degree course had been found to be little different from that of traditional matriculants.

SAIT would not see its attitude to TAFE courses as a qualification for entry to higher education courses in the same light as Moriarty. In its submission to the Anderson Enquiry (quoted by Moriarty) it claimed that the arrangements whereby possession of a technician's certificate was in fact the entry requirement for an associate diploma ensured that total recognition was given for previous work. It claimed further that the 'output mobility' of TAFE students would be assisted if more college of advanced education courses in appropriate areas were designed consciously to be end-on to TAFE courses.

3.3.6 Australian Institute of Building (AIB)

In 1982 the Australian Institute of Building entered the discussions with a policy statement entitled Education for the building industry.

As an illustration of pressures for credit transfer for entry this policy is useful.

The AIB recognises four identifiable vocational levels in the building industry for which building education must provide. They are:

- professional builders
- building technicians
- building tradespersons
- building operatives.

In each of these courses the AIB maintained that account should be taken of students entering from a lower level building course and such entry should be facilitated and encouraged for those students with the motivation and ability for success. For example, a successful building technician should be able to gain admission to a building degree course.

A diagram of the progress as seen by the AIB is shown in Figure 3.1.

In 1983 The Institution of Engineers, Australia, and the Australian Institute of Engineering Associates published a policy for engineering courses which agreed in principle with the AIB position. (Little and Wheeler, 1983).

3.3.7 Keeves

In its final report in 1982, the Committee of Enquiry into Education in South Australia (The Keeves Committee) addressed the question of credit transfer and laid the responsibility for the development of a transfer of credit system in South Australia on the Tertiary Education Authority of South Australia (TEASA).

The Committee recommended that:

- approval and accreditation of courses by TEASA should provide portability from colleges of TAFE to colleges of advanced education;

- TEASA should develop procedures to ensure this portability.

3.3.8 Skull

The recommendations of the Keeves Committee led to a comprehensive investigation, by Skull (1982), of transfer of credit between TAFE and college of advanced education courses. Skull restricted his investigation (as does this paper) to the transfer between courses relating to the same or an associated subject area.

Skull recommended the development of institutional policies for dealing with the admission of school leavers, mature students and holders of TAFE certificates as equitably as possible.

The outcome of this recommendation of the Skull report has been disappointing. A document (TEASA, 1982) based on the Skull report prepared for consideration by TEASA proposed that the Authority should initiate discussions with institutions on the feasibility of preparing documents which would provide publicly available information on the means of entry to the tertiary education system including information on preparatory and bridging courses and special entry schemes.

The Authority accepted the proposal, but it has not been implemented. It met with mixed reactions from the institutions, one of which argued that such a publication (perhaps annual) would date quickly and become misleading to students.

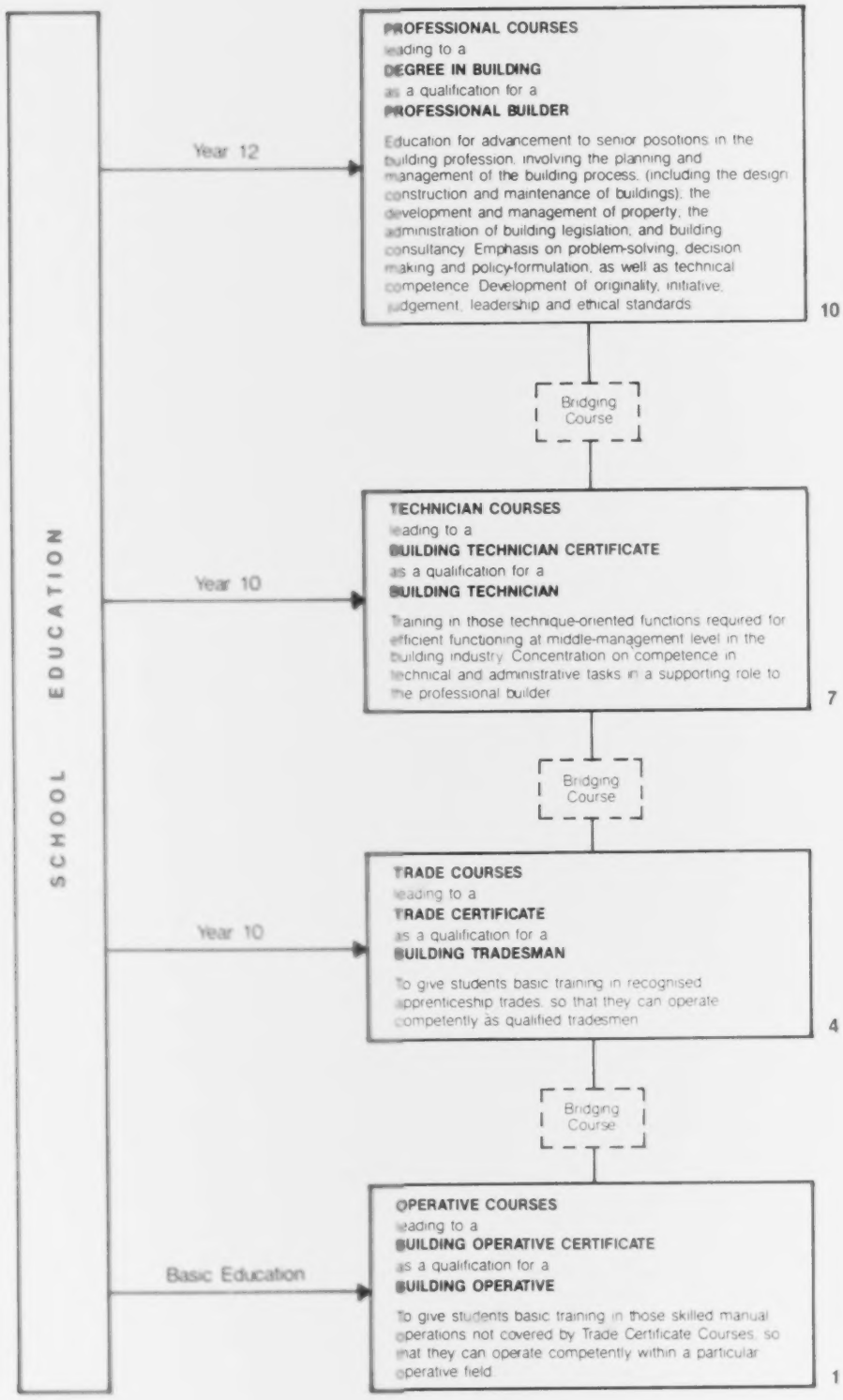
SCHOOL EDUCATION
Year 12
PROFESSIONAL COURSES
leading to a
DEGREE IN BUILDING
as a qualification for a
PROFESSIONAL BUILDER
Education for advancement to senior posotions in the building profession, involving the planning and management of the building process, (including the design construction and maintenance of buildings); the development and management of property; the administration of building legislation; and building consultancy. Emphasis on problem-solving, decision making and policy-formulation, as well as technical competence. Development of originality, initiative, judgement, leadership and ethical standards.
10
Bridging Course
Year 10
TECHNICIAN COURSES
leading to a
BUILDING TECHNICIAN CERTIFICATE
as a qualification for a
BUILDING TECHNICIAN
Training in those technique-oriented functions required for efficient functioning at middle-management level in the building industry. Concentration on competence in technical and administrative tasks in a supporting role to the professional builder.
7
Bridging Course
Year 10
TRADE COURSES
leading to a
TRADE CERTIFICATE
as a qualification for a
BUILDING TRADESMAN
To give students basic training in recognised apprenticeship trades, so that they can operate competently as qualified tradesmen.
4
Bridging Course
Basic Education
OPERATIVE COURSES
leading to a
BUILDING OPERATIVE CERTIFICATE
as a qualification for a
BUILDING OPERATIVE
To give students basic training in those skilled manual operations not covered by Trade Certificate Courses, so that they can operate competently within a particular operative field.
1

Fig. 3.1. Education for the building industry — an integrated structure. (Reproduced by permission of the Australian Institute of Building).

CHAPTER 4

TRANSFER OF CREDIT SYSTEMS RELATED TO STATUS IN AUSTRALIA AND OVERSEAS

4.1 INTRODUCTION

In its sixth report, the Australian Universities Commission stated that a new approach to higher education which should open access to it for those who 'for reasons of inclination or background, have been unable to enter tertiary education by normal routes', was necessary (AUC, 1975, p. 53).

Earlier Kuhns (1973) had made a similar comment in referring to technician courses where the history of the granting of status in degree work had not been encouraging.

4.2 OVERSEAS EXPERIENCE

4.2.1 United Kingdom

At the same time as the investigation in the United Kingdom into the feasibility of establishing a central information service on credit transfer in that country was in progress (Section 3.2.1), Fowler (1979) made some relevant comments. According to him the point which mattered most, was what a person could do successfully rather than how he learnt to do it. Commonly in education the converse has been true. The method of acquiring the knowledge has assumed more importance than the ability to apply the knowledge in the real world.

With regard to giving status for knowledge acquired, he asked two fundamental questions.

(a) Is it possible [to devise] . . . a general system of credit transfer ? (p. 57).

> Indeed, the objective ought to be to replace our present series of ladders, each of which ends upon a level from which there is no access to the level above, with a series of interlocking escalators, each one leading the learner to a landing where he may remain, or merely rest before proceeding to the escalator leading to the level above (p. 58).

In other words Fowler advocated a system of credit for work done which ensured that students continued with due value set upon what they had attained hitherto.

Furthermore he argued that a workable credit transfer scheme was essential if adequate information and guidance systems for potential students were to be devised and mixed modes of study and broken study were to be facilitated.

(b) Can we [UK education authorities] devise a common system of modules at each level in post-secondary education, for courses where a modular structure is appropriate? (p. 58).

By a common system of modules, Fowler meant that, throughout the post-secondary system, a module should reflect the same time commitment. In such circumstances, he saw the problem of credit transfer being eased greatly. In particular it would be possible to determine what weight (credit) should be given to several modules of TAFE studies for a student subsequently seeking admission to a higher education course. In many ways this is similar to the American concept of credit transfer which is discussed below.

The report, Educational credit transfer: Feasibility study (Toyne, 1979), as cited by Robbins (1980), saw the process of credit transfer in the context of status working in a way which parallelled the two fundamental questions posed by Fowler (1979). A credit transfer system would:

(a) grant 'exemption from parts of courses (entry with 'advanced standing'), to candidates with suitable previous experience' (Toyne, 1979, p. 2).

Toyne (1979) reported that the practice of granting status in higher education for students with appropriate qualifications was not widespread in the United Kingdom, though in recent years it had become less unusual as specific provision for it had been built into several different study schemes.

Formal agreements have been concluded between the Open University and CNAA and between the Open University and a number of other universities which have enabled advanced standing to be accorded, in appropriate cases, to students wishing to transfer between those institutions.

(b) introduce and develop 'study schemes based specifically on the principle of cumulative and transferable credits' (Toyne, 1979, p. 2). (An example is the American credit point scheme.)

In the United Kingdom at the present time, directly transferred credits may be awarded only to applicants who may benefit from specific transfer agreements reached by the Open University. Such agreements have been concluded with a limited number of universities only (The Open University, 1983).

As indicated in Section 3.2.1, Toyne concluded that it was feasible to establish a national information service capable of recording and providing information on credit transfer possibilities. Besides meeting the needs of users (educational and professional institutes, potential students, national award-making bodies), such an information service was seen as an important concomitant with the development of schemes aimed at making the system of higher education more available to potential students.

On the other hand, however, the establishment of a national information service was seen by some as having the inherent danger of entrenching existing transfer rules, because the tyranny of precedent might become absolute and the information service might consolidate barriers to mobility rather than facilitate free circulation.

This risk has not gone unrecognised. The report (cited in Robbins, p. 63) quoted the view of the Advisory Committee for Adult and Continuing Education that 'the success of the national information service should be judged by the extent to which it facilitates and increases student movement into and between educational institutions and its failure will be the extent to which it places further barriers in the path of movement'.

This fear of entrenching already established procedures was possibly at the base of the disappointing outcome of a similar recommendation made by Skull (1982) which was referred to in Section 3.3.8. It was also a concern that the autonomy of higher education institutions might be prejudiced if a book of precedents were available.

The report in the United Kingdom advocated a semi-autonomous organisation (independent of the institutions) to operate a national information service. Even though such systems have been successful in the United States (Johnson, 1977, Section 4.2.2), Robbins (1980) maintained that to leave such a service to the individual colleges was to condemn credit transfer to lingering failure. There may be salutary advice for Australia in such a comment.

The establishment and subsequent activities of the Educational Counselling and Credit Transfer Information Service (ECCTIS) has been referred to in Section 3.2.1 above. With regard to credit transfer related to status, the service was to provide:

- essential information about courses within a particular area of study for which particular optimal qualifications or part-qualifications have been accepted for advanced standing;

- for those students leaving courses before completion, information about other courses for which students' part-qualifications may be accepted for advanced standing (Frogbrook, 1984).

As indicated in Section 3.2.1 ECCTIS has not moved yet to the consideration of these questions.

However, the Further Education Unit established a project in April, 1984 with the aim of reviewing the literature relating to factors which delimit transition from vocational further education to higher education and subsequent achievement. The project has been established because of a general concern in the United Kingdom with the means by which those who are vocationally qualified can make (if they wish) a successful transition to and through higher education (Further Education Unit, 1984).

4.2.2 United States

A characteristic of American higher education is that credit is transferable between some universities and colleges, particularly those which are publicly funded and within the same State. It is often possible for students to accumulate credits at one university or college, transfer them to a second and perhaps complete and receive their degrees at another. In fact many Americans advocate that the opportunity to transfer credits from one institution to another should be a fundamental part of the American tertiary education system.

Although common and increasing, credit transfer between institutions in the United States is not comprehensive and universal. As recently as 1981, Masat said that while most institutions were willing to increase the opportunity for transfer, they were only just beginning to realise that this meant the easing of existing artificial barriers to access. For example, the hardened attitudes to community college students of some of the four-year institutions were only just beginning to be shed.

Menacker (1975) said that these hardened attitudes were the consequences of a number of problem areas seen by admissions officers in senior colleges:

- Few data were available to determine the proper grade point average for transfer admission.
- The rapid emergence of non-accredited community colleges presented a problem of how much credit should be transferred and under what conditions.
- Variations in university departmental requirements complicated the establishment of uniform credits for studies involving specific skills and knowledge.
- There was the question of whether the universities should honour any number of credit hours earned in community colleges or impose some arbitrary limit.
- Experimentation in community colleges caused difficulties for senior institutions in establishing equivalencies and course placements.
- Few guidance data accompanied the community college transferee as compared to the beginning freshman.
- Many transfer students lacked defined educational goals even after two years at community college.

These perceived problems have been reflected in the attitudes of senior institution administrators to transferees. Willingham (1972) noted that the purely procedural aspects of admission could be a barrier to effective transfer. Wilson (1970) argued that in their descriptions of admission policies and procedures, most senior institutions devoted much more space to those intended for freshmen than to those for transfer students, while Menacker (1970, cited in Willingham) asserted that junior college transfer students were often second-class citizens in the

admission process. On the basis of their survey of transfer admission practices, Willingham and Findikyan (1969) stated that, while some institutions were definitely in the transfer business, in many others freshman admissions took clear precedence over transfer admissions. They found that, in 146 colleges and universities studied, five out of six had no special literature for transfers.

Even so, community colleges, particularly, have offered transfer courses as an essential element of their programs. Transfer curricula are designed to meet the basic requirements of the first two years of college or university programs for students who plan to transfer.

The principle upon which transfer courses are based, is that students may plan a total degree program from the outset and, provided that they maintain successful academic performance, they may make uninterrupted progress even though they may have to change institutions. This principle is reflected in the guidelines prepared in North Carolina by the Joint Committee on College Transfer Students (Johnson, 1977).

Johnson described these guidelines as being at that time unique in the United States. They had been prepared voluntarily for voluntary use by representatives of colleges and universities which guarded carefully their academic independence. They represented a recognition of the importance of common reference points which autonomous institutions may use in considering the admission of and the granting of credit to transfer students.

With regard to admissions the principal guidelines were:

- Transfer students must meet the admissions standards set by receiving institutions. To prevent any unnecessary loss of time and credit, prospective transfer students should be identified as early as possible in their academic programs and be encouraged and advised to investigate the admission policies and procedures of receiving institutions.
- Performance is the best single predictor of further success and should count most heavily in admission decisions. For example, a poor secondary school record should not disadvantage students who have done well in community college courses.

The above is an example of the principles of an articulation agreement which, Masat (1981) noted, included:

- curriculum guides
- joint use of facilities
- exchange of instructional and consulting personnel
- advanced placement provisions.

In these articulation agreements, transfer policies are generally well defined, comprehensive and flexible.

Willingham (1972) distinguished three types of articulation agreement, each with its own procedures and possibilities.

- Articulation for general education programs where a senior instituion would accept a general education package developed by the community college within specifications as to total units, areas of emphasis, etc.

- Articulation for major discipline fields where more detailed agreements regarding the division of content between the two levels of institutions and the content of the basic courses would be necessary.

- Articulation for occupational fields, e.g. for vocational-technical programs, which has been found to be far more complex.

  For example, Walsh (1978) has pointed to the frustration experienced by many community college counsellors, teaching staff and administrators in their efforts to find appropriate university majors for their vocational-technical graduates.

  Sometimes the occupational courses were not even accepted as credits towards graduation and more importantly, according to Walsh, there were few traditional four-year degree programs which were logical developments of many community college career-oriented programs. (There is a similar situation in Australia where many of the disciplines addressed in TAFE courses do not have corresponding higher education courses. This paper is limited to those which do.)

  Menacker (1975) said that the distinction between the self-contained occupational programs of the community colleges and their college transfer programs was one of the major impediments to smoother junior-senior college transfer.

  According to Menacker, even where related courses existed in the two types of institutions, some senior institutions tended to rely on neat, easily administered formulae for credit that approve transfer and reject terminal (normally vocational-technical) programs. Menacker maintained that before disallowing credit, senior institutions should examine courses carefully in order to determine whether the content would be of value to the student in further study.

In addition Willingham pointed to a complicating factor in that there was possible overlap between these three types of articulation agreement. General education would often include the major disciplines, while occupational education would often include both elements of general education and the major disciplines.

Many of the articulation agreements are on a statewide basis and range from voluntary co-operative efforts as in Massachusetts and Kansas to legislated mandatory systems as in Florida and California (Tedrow, 1981).

In California, for example, all institutions of higher education were required to operate within a master plan. The community colleges were to provide standard college courses for transfer to higher institutions (Parkinson, 1976).

Kintzer (1971) summarised the articulation activities in each State. Of the 30 States which had articulation activities at that time, the types of articulation effort are shown in Table 4.1. (Trivett, 1976, noted that at that time, the number of States had grown to 39).

Willingham pointed also to 'a hidden problem of unknown dimensions', that is, the variation in practices with respect to transfer students crossing State lines. Transfer students were a relatively small percentage of the total flow of students between the States, but even so there were some local problems. For example, California required higher grade requirements for out-of-State transfer students and practically all States required non-resident tuition fees for at least one year after a student moved into the State.

Private institutions generally are not subject to State articulation agreements (voluntary or mandatory). Masat (1981) commented that some private colleges were predicting that formal written agreements with community colleges could soon come about.

Masat (1979) saw the articulation agreement as a central part of the articulation process. Indeed some senior institutions were beginning to view them as joint planning exercises with the feeder institutions.

Table 4.1

TYPE OF ARTICULATION EFFORT IN 30 AMERICAN STATES
(from Kintzer, 1971)

TYPE OF ARTICULATION EFFORT	NUMBER OF STATES
Some junior college legislation	28
Master plans for higher education	16
Plan for junior college education	25
State committee on articulation	17
Office of college relations in university or State colleges	11
Articulation guidelines	
. single senior institutions	22
. statewide	14
Core curricula	5

Transfer policies as reflected in articulation agreements in the United States serve the interests of many education authorities by having their resources for higher education used rationally by avoiding any requirement that a student should repeat a class unnecessarily.

However, according to Masat (1979) transfer policies may serve other than the altruistic purposes mentioned above. For example Startzel (1977) said that if enrolment trends continued downwards and tuition rates continued upwards, the key to enrolment stabilisation in many higher education institutions would be the transfer student or as Kuhns (1973) put it: 'the transfer/ itinerant student may spell the difference between survival and extinction' (p. 36). In short the education institutions will be seeking out transfer students in order to maintain enrolments.

As in the United Kingdom, there have been significant efforts in the United States to improve information services concerning transfer admissions. For example, the Middle States Association of Colleges and Secondary Schools conducted a survey of senior college policies and procedures which gives information concerning transfer admission practices at each of 200 member institutions (Middle States, 1968, cited in Willingham, 1972). The Bush Foundation (1972, cited in Willingham) has fostered better communication between community colleges and private four year institutions.

Vermilye (1976) referred to two projects concerned with the collection and dissemination of information about higher education programs to transfer students. He then took the dissemination process one interesting step further—he reported that Robin Wilson who was Associate Director of the Committee on Institutional Co-operation, advocated the establishment of educational brokering agencies. The broker finds out what the students wish to achieve in their careers, how much money and time they have to get there and what educational, intellectual, social or other limitations they perceive as barriers to achieving their goals and then provides information about the range of educational institutions and programs which meet the conditions set by the student. The student then makes a choice.

Vermilye saw this proposal as educational counselling of the highest order. (Although services of a similar nature have been provided by some TAFE counselling services for many years, it is arguable whether such a fundamentally 'free enterprise' adaptation would fit the Australian social environment. Even so Barrett (1981) saw an educational brokerage service as one solution to the problem of lack of adequate information for mature age students in Australia.)

4.2.3 Canada

Hill and Parkinson (1978) and Parkinson (1982) discussed the transfer of credit issue in Canada. Overall the situation varies from province to province with three broad systems operating, viz:

- transfer of credit on the American system—the Western provinces;

- no transfer of credit—Ontario and the Maritime Provinces;

- compulsory attendance at a community college before admission to university—Quebec.

British Columbia and Alberta

One of the purposes of the community colleges of Western Canada is preparation, after pre-professional education, for transfer to a university or an institute of technology.

The comments of Worth (1972) with regard to Alberta have been referred to (Section 3.2.3). In regard to transfer of credit related to status, Worth noted that tradition, emotion and the jealous guarding of academic bailiwicks, particularly on the part of universities, had continued to cause frustration, loss of time and unnecessary expense to students. Worth saw an effective method of credit transfer involving co-operation between the institutions based on mutual trust and respect. Such mutual trust and respect was impossible, he said, if one institution had veto power over another.

With regard to specially designed transfer programs in particular, he made a suggestion which many would see as radical: that the sending, rather than the receiving institution, should be the arbiter on status.

> Insofar as clearly designated transfer programs are concerned, the problem of advance [sic] standing within the receiving institution can be readily solved by giving the sending institution responsibility for certifying student attainment. The corollary being, of course, that the receiving institution has the obligation to accept the transferring student with credit for work successfully completed at the sending institution. Except for continuing consultation with respect to the nature of program content, and the process of education generally, receiving institutions would not interfere with sending institutions' programs. While such an arrangement would be a reversal of the norm in higher education, it is precisely what occurs in early and basic education. The policy is equally applicable to university transfer programs in colleges, to institute transfer programs in colleges . . . (Worth, 1972, p. 142).

Although limited in the extent to which he probably would apply it, it will be noted that the principle contained in Worth's proposal is diametrically opposite to that contained in guidelines prepared by the Joint Committee on College Transfer Students in North Carolina (Johnson, 1977) and to those suggested by Anderson (1979).

Anders (1976) said that the articulation which existed in 1976 between studies in community colleges and subsequent studies in universities provided a double benefit. Students could study in their local communities and in a way which was often more suited to their general educational development than if they were immersed directly in the university. The university on its part benefited from receiving an older, more mature student with more highly developed skills.

Manitoba

Barbeau et al. (1977) stated that at the University of Manitoba, students could be admitted to the first year from a one year community college program. They could be admitted with advanced standing into some courses from a two year program and in addition they could challenge for credit.

Ontario

In Ontario the vocational education institution is the college for applied arts and technology (CAAT). It offers mainly two or three year vocational/technical programs directed towards employment. The provision of transfer courses between CAAT and universitites has been omitted specifically.

This policy of non-transfer was not developed without strong debate and was at the best equivocal. Kelly (1967) quoted the Hon. William Davis, the then Ontario Minister of Education, as follows:

> Subject to the approval of the Minister, a board of governors of a college may enter into an agreement with a university for the establishment, maintenance and conduct by the university, in the college of programs of instruction leading to degrees, certificates or diplomas awarded by the university (p. 13).

This was an accommodation of sorts to the pressure put on the Department during the initial year of the CAAT's acceptance. However, the Department of Education insisted that, even though this concession had been made, it did not represent the true purpose of the CAAT.

Watson (1972) in a report commissioned by the Organisation for Economic Co-operation and Development suggested that the non-transfer policy might not succeed, particularly if excellent students from the best programs were locked effectively into a dead end. She considered also that status pressures would probably force the system to introduce general academic post-secondary programs which earn a high credit transfer for the university.

In fact the non-transfer policy of the CAAT has not succeeded completely. Barbeau et al. (1977) quoted Horizons, the publication of the Ministry of Colleges and Universities in Ontario as follows:

> While it is not intended that the colleges should act as feeder institutions to the universities, honour graduates of the two year programs may be accepted on

> an individual basis for admission to the first year of certain university programs. Qualified graduates of the three-year programs with honours standing in the final year may, in some instances, be admitted to the second-year of a related university program (p. 14).

The colleges in Prince Edward Island and New Brunswick fit roughly into this model as does the Newfoundland College of Trades and Technology.

Quebec

In 1967 the Quebec government set up colleges of general and vocational education (CEGEP).

These institutions share certain characteristics with the American community colleges. They have courses of two years' duration preparing students for the university, i.e. all university bound students enrol first in a CEGEP. The contrast with the Ontario CAATs will be noted.

4.2.4 New Zealand

In New Zealand there are three certificate awards (Hutchings, 1984):

- New Zealand Certificate: This is a five year program of part-time study. Students with university entrance qualifications are granted exemption from years one and two.
- Technicians Certificate: This is a three stage course with an admission level at about that of two years pre-university. These courses in many respects parallel the first three years of the New Zealand Certificate.
- Trades Certificates.

The New Zealand and Technicians Certificates are administered and examined by the Authority for Advanced Vocational Awards (AAVA) while responsibility for the Trades Certificates is vested in the Trades Certification Board.

There is a Standing Committee on Relationships in Tertiary Education (SCORITE) which was established to encourage discussion and co-operation between groups with interests in continuing education (Macpherson, 1984). The membership of the committee is drawn from top administrators of all New Zealand's major education bodies including technical institutes.

The terms of reference of the committee are:

> To provide a forum for the exchange of views and information amongst the statutory bodies and organisations engaged in education and training at the tertiary level on any matters of common concern including appropriate location of courses (Renwick, 1982, p. ii).

There is a standard list of cross credits between technical institutes and universities (Renwick, 1982). If the subject is within the standard list, exemption is granted by the principal or registrar of the institution concerned.

While it is difficult to generalise, the situation in regard to cross credits between universities and technical institutes seems to be that the New Zealand Certificate will entitle the student to advanced status in a relevant university course.

4.3 AUSTRALIAN PRESSURES FOR A TRANSFER OF CREDIT SYSTEM RELATED TO STATUS

4.3.1 Gilmour and Lansbury

In 1978 Gilmour and Lansbury reported that Australian universities had been criticised for failing to explore the possibility of making significant changes in their traditional method of operating in isolation from each other. Concepts such as the transfer of credits between institutions had not been well received and there had been only limited co-operation between universities and the other two sectors of post-secondary education.

4.3.2 Moriarty

The Anderson Committee of Enquiry into Post-Secondary Education in South Australia had been asked to investigate means of ensuring increased flexibility of movement of students between types of institution and in particular the granting of credit for course work done in one institution by another. The committee commissioned Moriarty (1978) to report to it on this question.

One particular part of his work was an analysis of the attitudes of higher education institutions in South Australia to the question of status as revealed in their own submissions to the Anderson Committee.

In those submissions a number of comments on the relation between TAFE and higher education courses was made.

The then Salisbury College of Advanced Education (now one campus of the South Australian CAE) noted that, while there was some acceptance of TAFE awards by colleges of advanced education as partial credit towards what it called 'tertiary' awards, there was no formal assessment mechanism. The position was seen as being complicated by the different academic levels required for entry by the TAFE and advanced education sectors and by the absence of an external assessment procedure in TAFE.

It could be argued that, in the absence of external assessment procedures in the colleges of advanced education, this concern might be seen as the advanced education sector trusting itself, but not TAFE.

The then Adelaide College commented that the transferability of qualifications was a major problem and that there was a need for greater cross-accreditation. The problem of status in transferring from one sector to another was seen as major. Although some status was granted to TAFE by colleges of advanced education, they offered no generalised system of equivalents and little encouragement for students in TAFE to apply for entrance to colleges of advanced education.

Moriarty quoted also from the submissions of a number of professional associations.

The Australian Society of Accountants was particularly concerned with the issue of status. It noted that three levels of accountancy courses were conducted by tertiary institutions:

- post-graduate courses by the South Australian Institute of Technology;
- degree courses by colleges of advanced education and the University of Adelaide;
- certificates by TAFE.

The Society claimed (incorrectly it would appear from an examination of institutional handbooks) that educational institutions did not offer status for persons wishing to transfer from lower to higher level courses. Students wishing to transfer were dissatisfied with the negligible amount of status afforded to their initial qualification.

Moriarty undertook an analysis of the actual transfers which occurred in South Australia in 1975 and 1977. He concluded that students who transferred did not fare well in the credit which they received for previous studies. It was rare for students to receive full credit, even where the field was similar.

Moriarty seemed to be influenced particularly by the fact that there was no formal mechanism and he recommended the establishment of a neutral, central body to hold information on transfer, to build up expertise in this area and to undertake reviews of problem areas as they arose.

In particular the body would:

- advise students on credit transfer options;
- improve student access to information regarding transfer options;
- open avenues of appeal against refusal of credit on transfer;
- require institutions to give full reasons for refusal of credit and details of their policies;
- conduct an independent examination of desirable transfer options to which students may not currently have access.

This recommendation of Moriarty paralleled strongly the work which was being considered at the same time in the United Kingdom on a National Transfer Agency.

4.3.3 Anderson

Anderson (1979) noted two particular findings of Moriarty:

- it was rare for transferring students to receive full credit for work undertaken previously;
- it was not known how many students were deterred from transferring by the difficulties in gaining credit for earlier studies.

It was noted also that colleges of advanced education recognised generally that the existing provisions for transfer of credit from TAFE were not satisfactory.

Anderson concluded that the then existing rules and practices for granting credit had resulted in too few students being given due recognition for studies completed and that TAFE students should be able to progress to courses of higher education with due recognition for studies which had been completed.

In order to overcome these difficulties the Committee recommended:

(a) that institutions survey their own practices and then co-operate with each other in order to establish arrangements for the whole system. (It is noted that while Robbins (1980) in the United Kingdom maintained that such an arrangement would be to condemn credit transfer to lingering failure, Johnson (1977) in the United States reported on the success of such a system.)

(b) that guidelines be published in order to assist students in making applications for transfer of credit (as proposed by Masat (1978))

(c) that the central co-ordinating authority (TEASA in South Australia) should take into account provision made for granting credit in consideration of applications for approval of new courses.

4.3.4 Skull

The question of status was re-examined in South Australia by Skull (1982) who made a number of recommendations. These recommendations were considered by the South Australian co-ordinating authority.

Significant recommendations and the actions taken were:

(a) **Each institution shall determine its own conditions for transfer of credit.** (Recommendation 1.1)

As this was consistent with established policies and practices, the recommendation was accepted by TEASA. It was also consistent with the recommendations of Anderson (1979). It is noted again that Robbins (1980) was very pessimistic about a transfer system developed on that basis, while Masat (1979) maintained that evaluation and acceptance of transfer credits rested with both the sending and receiving institutions.

(b) **Institutions in the tertiary education system should collaborate to achieve an agreed transfer of credit system which allows students the optimum opportunity progressively to achieve their highest level of academic and professional attainment in the minimum of time, consistent with the maintenance of high standards.** (Recommendation 1.2)

This recommendation was again consistent with Anderson and was endorsed but it can be said only to operate in principle. Its operation has not been monitored.

(c) **Clear information on the transfer of credit from one course to another should be made available to students, in order that they may know exactly where they stand regarding the amount of work to be undertaken to attain the short-term and long-term goals they set for themselves.** (Recommendation 1.3)

This recommendation goes further than that of Anderson and was endorsed by TEASA. However, there are some reservations in the institutions about the sort of commitment publication of such information infers. Some colleges of advanced education saw publication in the form of a comprehensive document as dangerous in what they saw as a dynamic situation. Course changes could change the status position overnight.

Whether such an objection is valid in the days of word processors is another matter. It can be argued that amended statements to accommodate changed situations can be made at the touch of a button.

In order to test whether it was possible to produce a document which would work in practice, the Authority agreed to establish a working party comprising representatives of the institutions and other relevant bodies to compile a document for the information of prospective students on study opportunities within the business/commerce field and on the basis of an evaluation of the effect of that document, consider extending the publication to other fields of study. The working party has not been established.

(d) **Subject areas should define the amount of credit they are prepared to offer in minimum and maximum terms, in order that individual differences in attainment of students may be differentially quantified.** (Recommendation 2.2)

The practice was commended to the institutions.

(e) **At the planning stages for courses to be approved or reviewed, there should be negotiations between the Department of Technical and Further Education and the relevant colleges of advanced education, which should lead to agreement on arrangements regarding the transfer of credit from the Department of Technical and Further Education courses to advanced education courses.** (Recommendation 5)

The Authority should consider courses submitted to it for approval or review only if they (the submitting institutions) demonstrate that inter-sectoral negotiations on the transferability of credits have taken place. (Recommendation 6)

It is standard practice within the Authority to ensure appropriate consultation has taken place. However, the particular wording of the recommendation caused institutions to express concern at the possible impact on institutional autonomy if the recommendation were implemented.

In particular some institutions were concerned that disagreement by one institution on the amount of credit granted by another in the course of the latter could prevent the latter from submitting its course to the Authority for approval.

Consequently the Authority agreed that, in considering a course submitted to it for approval or review, it would require evidence that negotiations had taken place on the portability of credit from and into the course, including inter-sectoral negotiations where appropriate, and that whenever possible credit determinations resulting from these negotiations had been documented.

This decision has been implemented.

The decision of the Authority can be seen as an acknowledgement of the force of institutional autonomy which, it might be argued, lies at the base of much of the difficulty of developing a realistic program of credit transfer.

The Authority in advising the institutions of its decisions, added the following rider:

> It should be emphasised that it is not the Authority's intention to withhold approval on the ground that credit proposed to be given for studies completed previously is inadequate. It is, however, appropriate for the Authority to advise institutions to consult where there is evidence that consultation on the matter has not been adequate, and make approval contingent upon consultations being undertaken. (TEASA, 1982, p. 3)

It will be noted that the rights of the granting institution (almost always a higher education institution) were entrenched. There was no acknowledgement that there may at times be a need for arbitration. It can be imagined what the attitude of the Authority might have been to any proposal such as that of Worth (1972) that the responsibility for certifying student attainment might rest in certain limited circumstances with the sending institution.

(f) The Authority establish a Transfer of Credit Working Party . . . with the mandate to consider:

- **the factual data on inter-institutional transfer of credit presented by the institutions and to recommend on arrangements for the publication of a document for the information of prospective students,**

- **information from the institutions and to recommend to the Authority ways in which institutions may reduce restrictions on the transfer of credit from institution to institution.** (Recommendation 14)

This echoed the recommendations of Moriarty (1978), of the working party on credit transfer in the United Kingdom (Toyne, 1979), of the Joint Committee on College Transfer Students in North Carolina, and of Masat (1979).

This recommendation was not implemented. The nearest action which was taken was the agreement to establish a working party on transfer of credit in business/commerce and this recommendation is in limbo.

Skull (1982) summed up as follows:

> At present the tertiary education system . . . has no guidelines on the transfer of credit. Inter-sectoral collaboration would be facilitated if agreement can be reached on fundamental policies and procedures (p. 18).
>
> It would seem . . . that if the network of study opportunities for tertiary students . . . is to be expanded without concomitant increased expenditure, if students are to share the best available facilities, if dysfunctional overlap of courses and excess capacity are to be avoided, . . . and if a system of equivalence for courses and procedures for transferability of courses is to be achieved in a reasonable period of time, then the present loose system of co-ordination must be tightened. There is a prima facie case for formal machinery to effect co-ordination to be set up, in the area of course articulation and transfer of credit (p. 68).

It can be seen that the essence of Skull's recommendations which is consistent with the consensus of overseas views—a co-ordinating authority on transfer—has been lost—possibly on the altar of institutional autonomy.

4.3.5 Commonwealth Tertiary Education Commission

The 1983 report of the Commonwealth Tertiary Education Commission (CTEC, 1983) touched upon the question of status in credit transfer. It commented that:

- while the extent of credit granted will vary in individual cases, acceptance in principle of such arrangements could be expected to encourage participation in higher education
- there may be scope for TAFE colleges to give further emphasis to special access programs for higher education
- some institutions in Victoria have established links with the TAFE system to encourage TAFE students to seek admission
- there is need for the development of co-operative arrangements among the three teritary education sectors.

In referring to the 1983 report, the Commission (Coughlan, 1984) noted that it looked to universities and colleges of advanced education to develop close links with TAFE colleges in their region in order to foster co-operation in the task of providing potential students with the academic background required to participate successfully in higher education studies. Some TAFE courses were seen as stepping stones to higher education.

4.3.6 Williams

The Williams Committee (1979) took the view that qualifications would become more portable and transfer of credit would be facilitated if a national register and classification of TAFE courses were established.

This recommendation has had a chequered history, but at last there is some hope of finality being reached. A classification manual for TAFE courses has been developed and was endorsed by the Conference of Directors of Technical and Further Education in May, 1983 (Stevenson, 1983). It is claimed that the national classification system will enhance inter- and intra-institutional recognition of courses and the development of clear relationships between TAFE courses and those of other educational providers.

4.3.7 Beswick et al.

In a report prepared to assist in the development of the Victorian TAFE Board policy on community colleges in Victoria, Beswick et al. (1983) made a number of references to credit transfer.

They noted that in South Australia, the arrangements for credit and transfer raised issues of central and local initiative and

co-operation. Many developments appeared to have stemmed from initiatives of individual teachers serving on curriculum committees with teachers from institutions in other educational sectors. They saw this as an important level of initiative because it developed from an association of colleagues on a basis of understanding and trust.

More generally the success of articulation was seen as important not only to students but also to the harmony of the education system. The image as well as the energy of colleges would be impaired by internecine warfare. This view was consistent with that of Skull (1982) (Section 4.3.4). Like Skull, Beswick et al. saw a role for co-ordinating authorities in emphasising co-operation particularly by encouraging the development of institutional linkages and course credits when new courses were being approved initially or when established programs were being re-accredited. In particular, curriculum developers at all levels needed to perceive the importance of good articulation to students who enter at particular educational levels for a variety of reasons and later decide they wish to move up.

Beswick et al. (1983) looked also at how the question of credit transfer might be approached by the TAFE Board in setting up community colleges in Victoria. For middle-level courses, they saw a particular problem with students who decide to move into degree programs at other institutions. They have extended an argument developed originally by Hopper (1979) in suggesting that such transfers should be negotiated directly between the institutions at certain curricular points. This would keep the central bodies out of what Hopper called the 'misconceived' role of establishing credit-worthiness.

The approach suggested by Beswick et al. was consistent with that adopted by TEASA in South Australia (Section 4.3.4(a), (b)). Even so they saw that there was a danger that the lower level institition would begin to be viewed and to view itself as a 'feeder college'. Harman (1979) and Bone (1979) both saw that this restrictive self-image could result in a college limiting its curriculum design by undue emphasis on feeder-type programs. Any system of credit transfer from TAFE to higher education in Australia must avoid this danger.

4.3.8 Blackburn

Blackburn (1984) chaired a Victorian Ministerial review of post-compulsory schooling. The co-ordinating committee for the review envisaged in the longer term the merging of all senior secondary school students in schools and all those in TAFE, including those engaged in occupationally specific education, into community colleges which overlap all forms of post-secondary education.

Such an institution would encompass the early years of university and college of advanced education courses. These courses would be accredited by the higher education institution and hence transfer would be possible.

4.3.9 Ashenden

In a recent paper, Ashenden (1984) suggested that credentials were the main vehicle of relations between the education system and its individual clients and between the various levels and sectors of the education system and the wider society (especially the labour market and the work place). He suggested further that credentials should shape these relationships, so far as is possible, so that they are efficient, equitable, consistent and understandable.

The paper carried the strong implication that credentials were no longer serving these purposes effectively and that something should be done about it.

There is evidence in this present study that such a view is not unique. In fact it could be maintained that the work of Skull (Section 4.3.4), Blackburn (4.3.8) and the Australian Vice-Chancellors' Committee (Section 3.3.4) have their origins in similar concerns to those of Ashenden.

It would seem that the issue of credentialling is one of great interest to many educationists in Australia. It is understood that an informal meeting of interested parties was held early in January, 1985, in order to discuss the issue, and, if it is deemed appropriate, to prepare a proposal for the consideration of the Australian Education Council.

CHAPTER 5

THE MECHANICS OF ARTICULATION

5.1 MODELS FOR ARTICULATION

5.1.1 Model related to entry

The continuum model

This model is the answer of Moriarty (1978) to the problem of designing a terminal course which is tailor-made to the needs of a particular job, while at the same time allowing for those who may wish to transfer to a higher level of study.

The essence of this model is a continuum of studies embracing basic vocational and paraprofessional TAFE level studies and higher education undergraduate studies. Such an arrangement is designed to enable a student to progress through units or courses and exit at a point appropriate to needs and to receive a recognised and accredited award on exit.

Hermann (1971) quoted the Victoria Institute of Colleges as saying that the attractions in this model lie in the comparative ease with which it can be administered and in the fact that every commencing student has an equal opportunity of proceeding directly to a degree, and students, unable to complete their final degree year, have at least been credited with a recognised award (i.e. a UG2 diploma).

The main practical difficulty in this model was referred to in Section 2.3.2, that is, the lower course may lose creditability in its own right if it is designed and arranged to facilitate transfer of credit to other courses designed primarily for higher level jobs. In addition, the attenuated set of courses may lead to a high level of discontinuance.

Hermann maintained that a system such as this would appear to lack any practicability if more than one pair of courses were involved. It would seem to be impossible to devise satisfactorily an end-on system of industrially relevant certificate—diploma—degree courses. In particular, the theory required at the lower stages would be generally insufficient for the required level of understanding at the later stages, thus resulting in repetition of both theory and practical and a very drawn out degree course for those starting at the certificate point of entry.

5.1.2 Models related to status

The status model

There are at least two variations of this model.

The first involves status being granted in subject B at one institution on the basis of successful completion of subject A at another. This process is used for example in the Department of TAFE in New South Wales which has had a large book of standard exemptions (NSW TAFE, 1980).

In this variation a statement of status would provide a list of the subjects from specified courses for which status would be granted in particular subjects of a specific course thus:

For Course X

Subject exempted	Subject(s) providing basis for exemption
Accounting 1	Principles and Practice of Accounting (Course Y)
Economics 1	General Economics (Course Y)
Mathematics	Elements of Statistics (Course Y and Z)

The second variation involves the specifying of the status which will be granted on the basis of the completion of a particular qualification.

An example of this variation is taken from the 1984 Handbook of the South Australian College of Advanced Education (SA CAE, 1984, p.30):

> Students admitted to the Bachelor of Business (Accountancy) who hold a Department of Technical and Further Education Business Certificate (Accounting) or the equivalent will on application be granted status in up to 7 units from the following units:
>
> Introduction to Accounting
> Financial Accounting
> Economics of Choice
> Business Law 1
> Business Law 2
> and 2 elective units.

The qualifying requirements model

As courses differ in aims, structure, content, teaching methods and assessment from one institution to another, transferability of credit may be viable only if broad general equivalence rather than direct, specific one-to-one equivalance is the criterion.

Skull (1982) reported that a transfer of credit system based on a qualifying requirement, i.e. a statement of the subjects required to complete a course, has been used by the SAIT since 1970. The general level of previous study is assessed and a statement of what is needed for completion is made.

A qualifying requirement could read:

> In order to qualify for an Associate Diploma in Cartography, a holder of the Cartography Certificate is required to complete the second and third years of the course of the three year associate diploma course.

The credit point model

This is a fundamental part of the American tertiary education system and gives particular recognition to the responsibility of individual students designing their own program of study. Worth (1972) saw the principal advantage of this model as its flexibility, while Cerych and Furth (1971) saw it as the main instrument of student mobility and institutional 'permeability'.

In the model, a subject is allocated a certain point score depending upon its level and course requirements, and students may accumulate points until they have sufficient for a degree. Clearly in this process subjects can be undertaken only with the prerequisite knowledge.

Cerych and Furth claimed that the credit point model permits validation of studies on an inter-institutional and inter-sectorial basis, across levels and types of course.

The credit transfer procedures at the Oregon Institute of Technology in the United States provide an illustration of how this model works in practice. The Institute provides an Associate of Applied Science Degree in Diesel Technology of 101 credit points and a Bachelor of Technology in Auto-Diesel Technology which requires an additional 101 credit points to the Associate degree. The Institute will admit to the third year of the four year bachelor course, holders of an associate degree from other institutions and grant 101 credit points provided that the applicant has 52 credit points in technical studies related to automotive diesel and an additional 27 of the residual 49 credit points in disciplines such as technical writing, mathematics and physical science (Purvine, 1975-76).

There is an Australian example of certificate-higher education articulation at the University of Wollongong. A two year TAFE Certificate receives 24 credit points towards a bachelor degree which requires 144 credit points (Langridge, 1984).

5.1.3 Models related to both entry and status

The bridging model

This model is described by Mathers (1981), and assumes the existence of individually designed TAFE and higher education courses each with its own well defined terminal objectives yet both within the same discipline.

The feature of the model is a specifically designed bridging course, which spans the terminal standard of the TAFE course to the commencement point, to some fixed point in, or to the terminal standard of a higher education course.

The model is used in New South Wales by the Department of TAFE (NSW TAFE, 1984) and the Riverina College of Advanced Education (Neilson, 1984). The NSW Department conducts a cartography conversion program which is intended for students who have completed the Cartography Certificate, and, who wish to upgrade

their knowledge and qualifications to the Cartography Associate Diploma level. The Riverina CAE conducts a conversion program from the TAFE Management Certificate to the Bachelor of Business (Administration).

This model is the solution suggested by Hermann et al. (1976) to what has been called the transfer/terminal dilemma. A diagrammatic representation of how Hermann (1971) saw that such a system may work is shown in Figure 5.1.

This model for progression through the various levels of courses has been advocated by The Institution of Engineers, Australia, and the Australian Institute of Engineering Associates (Little and Wheeler, 1983), who stated:

> Persons desiring to enter the engineering workforce directly from school or by later entry should be advised to enter at a level in which they have a high prospect of success. After initial experience in the workforce a decision on whether it would be desirable for them to upgrade their qualifications can then be made with more confidence. Appropriate bridging courses of study should be available to facilitate such transfer provided there is a demonstrated sufficient need (p. 19).

A diagram of how such a system might work is shown in Figure 5.2.

The competency model

Kuhns (1973) noted that, even in countries like the United States where, in general, credit transfers are acceptable, the awarding of status towards a baccalaureate degree from trade and technical courses has been troublesome (see Section 4.2.2).

These troubles have led Peterson (1981) to suggest the competency model of articulation. In this model the competencies and performance standards required by one institution to enable applicants for transfer from another to be admitted or to be granted status, are established and regulated co-operatively by the institutions concerned.

Students may transfer or be granted status when they demonstrate proficiency in all the required competencies.

An extension of the model is the introduction of 'challenge tests' as a means of assessing whether a student is competent to begin or be granted status in a study program.

An example of the use of a challenge test is provided by Parkinson (1976) who described the New York State College Proficiency Examinations Program (CPEP). These examinations are conducted by the Regents of the University of the State of New York. They were begun in 1963 to meet the needs of people who had acquired tertiary education level knowledge in unconventional ways such as job experience, military courses or independent reading. CPEP can be used to earn college credit.

One example in Australia is that of the South Australian College of Advanced Education which is prepared to grant status in business studies courses via the status system.

5.1.4 A comparison of the models

An examination of the articulation arrangements which exist between higher education and TAFE middle-level courses in Australia reveals that there are examples of the use of virtually every model. The most common is the second variation of the status model.

The models considered most appropriate for articulation between higher education and TAFE courses are discussed in Section 11.4.

5.2 THE ENVIRONMENT FOR SUCCESSFUL ARTICULATION

Moriarty (1978), Masat (1979) and Mathers (1981) have addressed themselves to the intellectual and institutional environments which are necessary if a working and equitable system of credit transfer is to be developed.

Moriarty was concerned at the philosophy he saw underlying the existing education system. He was afraid that it was directed towards preserving 'the existing socio-economic stratification and the essentially non-existent equality of opportunity' (p. 3), and therefore that transfer would continue to be impeded, and the existing barriers justified, on economic grounds.

Although the system in the United States is much freer than in Australia, there is still room for criticism. Parker (1979) put it thus:

> The present day American educational establishment must recognize more acutely than ever before the fundamental American right of people to be mobile, both in a locational or geographic and socioeconomic sense. When one looks at the vestiges of territorialism and protectionism as expressed in most college and university admissions and transfer policies, we have a long way to go before we can say that we have made our institutions widely accessible and truly open for people to use throughout their lifetimes in ways that best meet their purposes. Barriers to access and mobility remain despite the fact that we have increasing social pressures to lower them. While the open door of the community colleges has expanded access greatly in this country in recent decades, transfer to four year baccalaureate institutions is still overly complicated and bureaucratic (p. 123).

The Task Force on Educational Credit and Credentials of the American Council on Education (Miller and Mills, 1978) said that in the United States the transfer area was becoming a political issue.

> Public institutions, consistent with their roles as part of State systems of postsecondary education, bear a special responsibility for developing articulation agreements and equitable policies for serving transfer students (p. 238).

Overall it would appear that the political realities are that the American public is demanding increasingly that existing prejudices be swept aside. Flexibility which will reduce the barriers restricting student mobility and access to educational opportunities is sought and this requires, besides formal agreement, a sympathetic attitude to the needs of transfer students.

As Masat (1979) said:

> . . . good articulation (and transfer policy) is based on a mutual concern for the student's progress, and not on furthering institution prerogatives. Thus articulation is made most effective by using personnel who have experience, professional respect for one another, and mutual trust and confidence (p. 6).

In Masat's view poor communication is a universal element in articulation difficulties. The major cause of poor communication has been a lack of regular contact and review between the faculties of the different institutions.

Mathers took a similar view to Masat on the environment needed. He said that, regardless of what mechanisms were developed to enhance articulation, an essential requirement was a commitment by institution and staff. The barriers could be overcome if the commitment existed.

Gleazer (1968), cited in Menacker (1975, p. 60), notes:

> Articulation is both a process and an attitude, and . . . attitude is the more important of the two, for without it there can be no workable process.

Mathers suggested a number of processes which can develop commitment and improve the chances of a successful transfer program. They include:

- improved communication between institutions;
- participation of other sectors in course planning and development;
- participation of other sectors in course review, rationalisation, assessment and accreditation;
- membership of other sectors on institutional councils and standing curriculum committees;
- shared teaching of courses and subjects.

5.3 THE ARTICULATION AGREEMENT

A favourable intellectual and institutional environment is necessary for the development of an articulation agreement which will allow learners to move freely through the tertiary education system according to their needs, circumstances, possession of prerequisite competencies and ability. Such an agreement would be necessarily a partnership between the institutions of higher education and the TAFE colleges.

There are at least 37 such articulation agreements in the United States (Galbraith, 1981). They are based on the premise that the rights of a student to mobility supersede the prerogatives of higher education institutions to inhibit movement.

An overall consideration of the literature would suggest that the key to the success of articulation agreements is:

- a spirit of co-operation between the institutions;
- an articulation co-ordinating committee along the lines proposed by Moriarty (1978) and Skull (1982);
- the presence of liaison officers at institutions of higher education to monitor transfer policies;
- a common transcript in TAFE and higher education: this would provide a common academic reporting language so that a more objective evaluation of student performance could be made;
- a common course nomenclature system (Parker, 1979; Galin, 1981).

Course/Entry
Movement of emphasis: theory → application
Degree
Part A
Part B
Completion of full secondary schooling (Generally Grade 12)
Year 1 FT or Stages 1 - 2 PT or Sandwich
Stages 3 - 6 PT or Sandwich
Fail
1 year PT more basic maths, science, etc
Fail
Diploma
As above (Perhaps slightly less stringent pre-requisites)
Year 1 FT or Stages 1 - 2 PT or Sandwich
Stages 3 - 4 PT or Sandwich
Fail
(Course B) Conversion course allowing A & B Certificate graduates to undertake same work as final stages of diploma (including some basic theory) to qualify for award of diploma
1 year PT more basic maths, science, etc
Fail
Certificate
Generally Grade 10
Year 1 FT or Stages 1 - 2 PT or Sandwich
Stages 3 - 4 PT or Sandwich

Fig. 5.1. An example of a bridging-type articulation system.

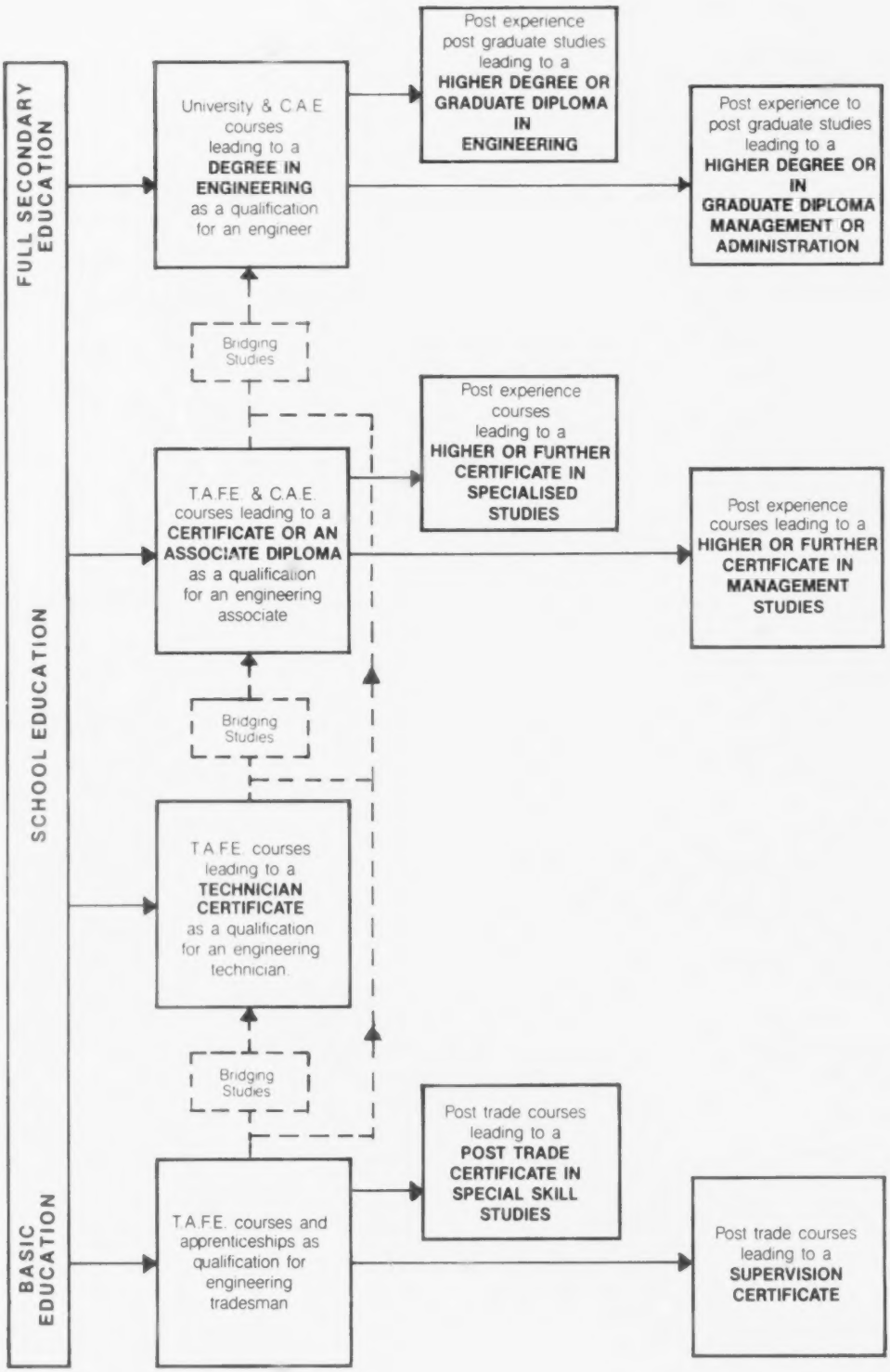
FULL SECONDARY EDUCATION
SCHOOL EDUCATION
BASIC EDUCATION
University & C.A.E. courses leading to a DEGREE IN ENGINEERING as a qualification for an engineer
Post experience post graduate studies leading to a HIGHER DEGREE OR GRADUATE DIPLOMA IN ENGINEERING
Post experience to post graduate studies leading to a HIGHER DEGREE OR IN GRADUATE DIPLOMA MANAGEMENT OR ADMINISTRATION
Bridging Studies
T.A.F.E. & C.A.E. courses leading to a CERTIFICATE OR AN ASSOCIATE DIPLOMA as a qualification for an engineering associate
Post experience courses leading to a HIGHER OR FURTHER CERTIFICATE IN SPECIALISED STUDIES
Post experience courses leading to a HIGHER OR FURTHER CERTIFICATE IN MANAGEMENT STUDIES
Bridging Studies
T.A.F.E. courses leading to a TECHNICIAN CERTIFICATE as a qualification for an engineering technician
Bridging Studies
T.A.F.E. courses and apprenticeships as qualification for engineering tradesman
Post trade courses leading to a POST TRADE CERTIFICATE IN SPECIAL SKILL STUDIES
Post trade courses leading to a SUPERVISION CERTIFICATE

Fig. 5.2. Education for the engineering industry as an integrated system. (Reproduced by permission of the Institute of Engineers, Australia).

CHAPTER 6

THE AUSTRALIAN POSITION TODAY—GAINING THE INFORMATION

6.1 PUBLICATIONS

The principal source of published information on the transfer of credit was the Directory of Higher Education Courses 1984 published by the Department of Education and Youth Affairs. The directory contains a list of tertiary institutions in Australia and broad information on entrance requirements.

Much of the published statistical information was obtained from the Commonwealth Tertiary Education Commission and the Australian Bureau of Statistics.

In addition a number of institutional calendars and handbooks were consulted.

6.2 TAFE AUTHORITIES THROUGHOUT AUSTRALIA

Discussions were held with key personnel in TAFE throughout Australia. Each TAFE Authority was approached with the request to nominate a liaison officer for the project. (A list of liaison officers is provided in Appendix A.)

The broad purposes of the discussions with the TAFE officers were to ascertain the views of TAFE Authorities on the acceptance of TAFE qualifications by higher education institutions and on any changes which they considered should be made to current practices.

6.3 THE STATE HIGHER EDUCATION ADMISSION CENTRES

Each of the tertiary admissions centres in the States was approached with requests for any relevant statistical information it might have collected.

Information was sought on students who had applied to tertiary admissions centres for entrance to higher education courses on the basis of a TAFE middle-level qualification, to ascertain in particular:

- the number who applied, by institution to which admission was sought,
- the number offered admission by the institution,
- the number who accepted the offer by the institution.

6.4 THE QUESTIONNAIRE

It was decided to approach each university and college of advanced education with a request that they complete a questionnaire. The questionnaire was piloted in the South Australian universities and colleges of advanced education, the Royal Melbourne Institute of Technology (RMIT), and Deakin University. A copy of the letter sent to those institutions is contained in Appendix B.

In the subsequent survey, answers to separate questionnaires were sought from the universities and colleges of advanced education. Copies of the covering letter and of the questionnaires are contained in Appendices C, D and E.

The questionnaires were aimed directly at meeting the purposes of the study with an attempt to isolate information by level of course (viz. bachelor degree, UG1, UG2 or UG3) and discipline (viz. science, engineering, business studies, art and design, and others).

The university questionnaire was confined to bachelor degree courses, while the college of advanced education questionnaire addressed UG1, UG2 and UG3 courses.

In each case information was sought from 1980 onwards.

6.4.1 The first purpose of the study

The first purpose of the study was defined as:

> To identify and classify the policies of universities and colleges of advanced education on the admission of holders of TAFE middle-level Certificates, to identify the extent to which such students are admitted to relevant courses in colleges of advanced education and universities and to examine the success of students so admitted.

Question 1 of both questionnaires addressed this issue. Respondents were asked if their institution had a policy on the acceptance of TAFE middle-level courses as a qualification for admission to courses, and, if they did, to state the policy.

Provision was made in each questionnaire for separate answers for each of the disciplines under investigation and, in the college of advanced education questionnaire, for each of the course levels.

Three particular issues addressed within this first purpose were:

a) identification of the number of students who have completed TAFE middle-level courses successfully, and who have attempted to use these TAFE courses as a qualification for entry to a relevant higher education course;

b) identification of the numbers of students who were accepted, and, who were then actually enrolled on the basis of their TAFE qualifications;

c) identification of the success of students who were admitted to relevant higher education courses on the basis of TAFE middle-level courses, compared with the success of students who had matriculated in the conventional way.

These questions did not in fact seek comparable data on students admitted on the basis of a TAFE qualification with those who had matriculated in the conventional way. An attempt to do this would have led to problems of defining what is meant by 'conventional'. Rather, the comparison was between students admitted on the basis of a relevant middle-level TAFE qualification and all students (including those with a TAFE qualification). Such a comparison will give a perspective of the success of students entering higher education courses from TAFE middle-level courses.

One problem of definition could not be avoided—that was the criterion of success. 'Success' was defined as a pass in all subjects enrolled in in the first year of higher education. While there may be disadvantages in this definition, it has the advantage of being unequivocal and hence being usable as a basis for comparison.

6.4.2 The second purpose of the study

The second purpose of the study was defined as:

> To identify and classify the policies of universities and colleges of advanced education on the granting of status to holders of TAFE middle-level Certificates, to identify the extent to which such students are granted status in relevant courses in universities and colleges of advanced education and to examine the success of students so admitted.

There were two particular issues addressed within the second purpose:

a) The status given to and the success of students who have undertaken relevant TAFE middle-level courses, and, who have matriculated in the conventional way.

Further information was sought

- to identify the number of students who have matriculated in the conventional way, and, who have attempted to obtain status in a relevant higher education course on the basis of a successfully completed TAFE middle-level course;

- to identify the numbers of the above students who were granted status, and, who were then actually enrolled on the basis of their TAFE qualifications;

- to identify the success of students who were granted status on the basis of success in a TAFE middle-level course, and, who had matriculated in the conventional way.

b) The status given to and the success of students who have used their TAFE middle-level course as qualification for admission, and, who have not matriculated in the conventional way.

Further information was sought

- to identify the number of students who gained admission to a higher education institution on the basis of a successfully completed relevant middle-level TAFE course, and, who have attempted to obtain status on the basis of that same course;

- to identify the numbers of the above students who were granted status, and, who then actually enrolled;

- to identify the success of students who gained admission to a higher education institution on the basis of a successfully completed relevant TAFE course, and, who gained status on the basis of the same course.

6.4.3 The final questions

Respondents finally were asked to:

a) give any other information they might have concerning the performance of TAFE Certificate holders in higher education courses;

b) give the name and telephone number of persons who could be contacted for further information.

6.5 DISTRIBUTION OF AND RESPONSE TO THE QUESTIONNAIRE

The questionnaire was distributed to all higher education institutions in Australia as listed in Directory of Higher Education Courses 1984.

The number of universities and colleges of advanced education approached in each State and the responses received are shown in Table 6.1. The responses from the central city institutes of technology and the other colleges of advanced education were separated.

Of the 90 higher education institutions approached, 35 responded, although not necessarily by returning a questionnaire.

Table 6.1

QUESTIONNAIRES DISTRIBUTED AND RESPONSES RECEIVED BY STATE AND TYPE OF INSTITUTION

STATE/ TERRITORY	NSW		VIC		QLD		SA		WA		TAS		NT		ACT		**TOTALS**	
INSTITUTION CATEGORY	D	R	D	R	D	R	D	R	D	R	D	R	D	R	D	R	D	R
Universities	6	4	4	3	3	2	2	2	2	1	1	1	-		1	1	19	14
Major city institute of technology	1		1	1	1	1	1		1								5	2
Other Colleges of advanced education	27	5	17	6	8	3	3	1	3	1	2		-		5	3	65	19
[1]Other	1	-															1	-
TOTAL	35	9	22	8	12	6	6	3	6	2	3	1			6	3	90	35

[1] Specifically Darwin Community College

D = Distributed R = Returned

CHAPTER 7

ARTICULATION BETWEEN TAFE AND HIGHER EDUCATION IN AUSTRALIA TODAY

7.1 NEW SOUTH WALES

Neilson (1984) reported that in general in New South Wales there is no overall policy on articulation between TAFE middle-level Certificate courses and courses in higher education institutions. Senior staff from most TAFE schools (i.e. areas of particular disciplines) offering middle-level courses have at some time negotiated or attempted to negotiate acceptance of TAFE courses for matriculation, or advanced standing, in programs offered by specific universities or colleges of advanced education. Neilson said that the situation varies from institution to institution.

A committee consisting of staff from the NSW Department of TAFE School of Electrical Engineering and the NSW Institute of Technology is considering presently guidelines for exemptions for Electrical and Electronic Engineering Certificate holders wishing to study the Electrical Engineering degree course at the NSW Institute of Technology.

7.2 QUEENSLAND

In Queensland there have been no formal articulation arrangements between the Queensland Institute of Technology (QIT) courses and TAFE middle-level courses. In general the TAFE Authority in Queensland does not provide middle-level Certificate courses in disciplines which are serviced by QIT. The tendency is for there to be either a TAFE Certificate course in a technical college or a UG3 course at QIT—not both.

However, the Queensland TAFE Authority has approached the Queensland Board of Advanced Education for certain TAFE Certificates to be accepted for admission to particular courses in colleges of advanced education. These have been accepted.

A specific articulation agreement has been recommended for surveying and mapping education in an evaluation conducted by Lyons (1984). The proposal is for a corporate plan for all levels of surveying and mapping education in Queensland and covers the University of Queensland, QIT, Darling Downs Institute of Advanced Education and TAFE. It is recommended that the resources of each institution should be pooled and allocated according to a totally integrated, comprehensive education and training plan.

Specifically it is recommended that TAFE Certificate courses in surveying, surveying drafting, and mapping should lead via bridging courses to associated diploma courses in engineering surveying, mine surveying, and mapping.

7.3 SOUTH AUSTRALIA

There are two specific agreements between the South Australian Department of TAFE and the South Australian Institute of Technology (SAIT).

One agreement concerns the TAFE 1 Award in Geoscience for which a joint accreditation document has been submitted to the Tertiary Education Authority of South Australia (DTAFE, SAIT, 1984).

The course is presented in two phases. The first phase is conducted by the Department of TAFE and the second jointly by the South Australian Institute of Technology and the Department of Mines and Energy. On successful completion students will gain status in some subjects in certain UG2 and UG3 courses at SAIT.

The other agreement concerns an integrated program of study in electrical engineering which has been developed between the South Australian Department of TAFE and SAIT. This integrated program provides optional study paths for persons wishing to pursue trade, technician and degree qualifications. The intention is to reduce the total number of hours of part-time study required to complete these qualifications (SAIT/DFE, 1979).

The program was designed originally for selected electrical apprentices who had matriculated. However, the inherent flexibility has enabled the program to be extended to other selected persons.

An outline showing typical progress through the new program is shown in Figure 7.1. Under this scheme a student commencing as an apprentice could emerge with trade, technician and degree qualifications after eight years of study.

This is an example of the bridging model of articulation (see Section 5.1.3). Although, if the courses were undertaken in the format envisaged as Figure 7.1, the student would complete the three qualifications in less time than if undertaken separately, it remains to be seen whether many students will survive through the set of courses. Nevertheless, Parker (1984) reported that the Electricity Trust of South Australia has employees who have moved through apprenticeships to full-time undergraduate courses.

7.4 WESTERN AUSTRALIA

In Western Australia there is a formal agreement on the acceptability of TAFE certificates for UG1 and UG2 courses at the Western Australian Institute of Technology.

The Western Australian Post Secondary Education Commission (WAPSEC) has established a working party the brief of which has been expressed broadly in the words: 'it would be helpful to consolidate information on existing opportunities for credit transfer. Other aspects that could follow would include measures to improve student awareness of credit transfer possibilities and consideration of ways for further opening up these possibilities in response to identified needs'. (Howse, 1984).

The working party has established already that the ability of students to transfer between institutions or sectors of post-secondary education is in need of further study. At the time of writing no firm conclusions have been reached, but it is likely that WAPSEC will be asked to sponsor a seminar of interested parties in order to explore further ways in which articulation between institutions might be improved.

7.5 AUSTRALIAN CAPITAL TERRITORY

In the A.C.T. there is no formal agreement between the TAFE colleges and the higher education institutions on acceptance of TAFE middle-level Certificate courses for admission to or status in higher education courses and there is some concern in the TAFE colleges that no formal arrangements have been reached (A. Wheeley, pers. comm., 1984).

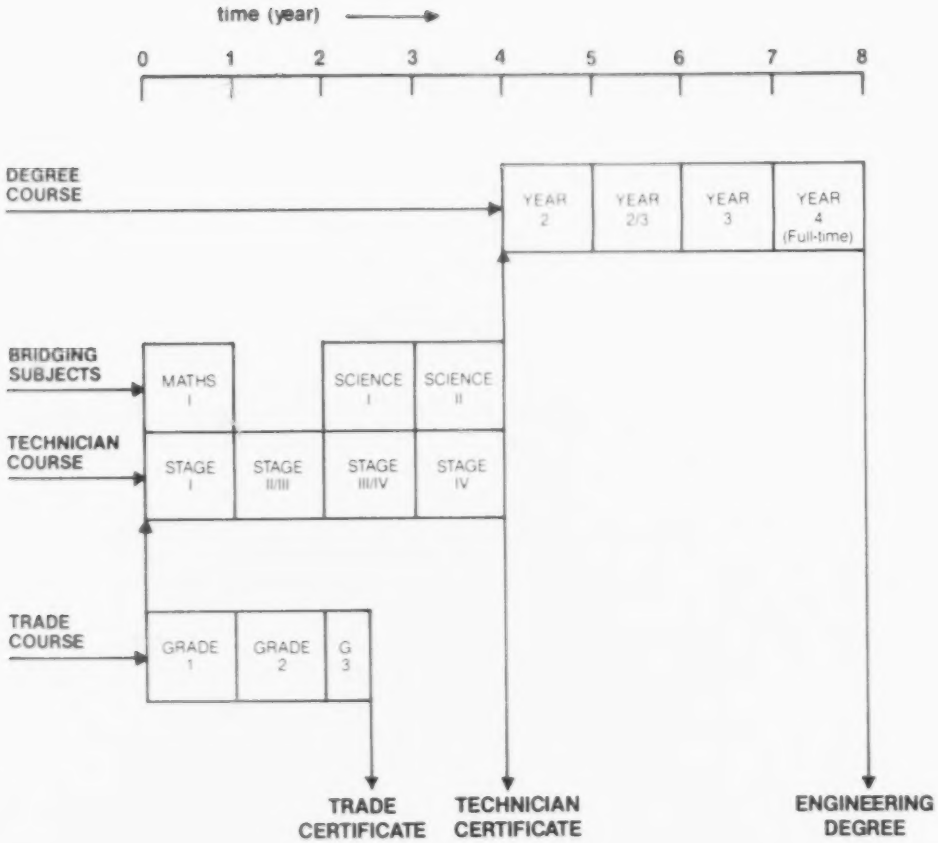

Fig. 7.1. Possible progress for student using integrated program

CHAPTER 8

TRANSFER OF CREDIT RELATED TO ENTRY— THE AUSTRALIAN POSITION TODAY

> An exit credential from one institution is rarely if ever acceptable as an admission credential to a different type of institution. What credit, for instance, does a nurse who has successfully completed her courses in nursing receive when she presents herself for medical training? (Anders, 1976, p. 4).

In this chapter, the validity of this claim of non-acceptability of credentials of one type of institution by another type of institution is examined for TAFE middle-level Certificate courses, principally by an analysis of the responses received from the institutions. Many of the responses were by personal letters from officers of these institutions. These officers are listed in Appendix D and except where otherwise specified are the sources of information relating to their institutions.

8.1 POLICIES ON ACCEPTANCE OF TAFE MIDDLE-LEVEL COURSES AS A QUALIFICATION FOR ADMISSION

8.1.1 The universities

In nearly every case the published entry requirement for Australian universities is matriculation (i.e. year 12 level of secondary school) or its equivalent.

The Australian National University assesses applicants on the basis of their year 12 certificate provided they have completed an approved pattern of studies and have sat for the Australian Scholastic Aptitude Test (ASAT).

Gibb (1979) noted that there was provision for mature age entry at many universities. Others have provision for special entry.

With respect to age, four universities have provisions for the admission of persons over 25, and for 12 other universities mature age is over 21 (Barrett, 1981).

For example, Deakin University provides for admission of mature age students who are at least 21 years of age, have not qualified for the Higher School Certificate or its equivalent and have not studied for it on a full-time basis over the previous three years.

Gibb (1979) identified two basic adult entry schemes both of which may operate in the one institution:

- completion of a limited program of studies at the HSC or equivalent examination;

- no formal educational attainment but reliance upon an assessment of capacity to cope with university studies.

The whole question of university entry requirements has become a matter of close interest to the Australian Vice-Chancellors' Committee (AVCC), which set up a Steering Committee on University Entry Requirements (Hambly, 1984) in February 1984 (see Section 3.3.4).

This present study is much narrower than that of the AVCC in that it is concerned with one special aspect of the general study being conducted by the Steering Committee, i.e. the acceptability of TAFE middle-level qualifications for admission to higher education institutions.

The published information suggests that TAFE middle-level qualifications are not acceptable generally for admission to universities. However, questioning of individual universities indicated that the situation is somewhat different from that suggested by the published information.

New South Wales

The University of New England has, for at least the last 15 years, recognised TAFE courses for admission purposes in the case of adult students, i.e. over 20 years of age on March 1 of the year of intended enrolment. Certificates which are accepted include commerce (accounting procedures), biological technician, management and supervision.

The University of Wollongong has a policy of accepting TAFE two-year and TAFE three-year full-time certificates for admission to degree courses.

Neilson (1984) reported that good relationships existed in regard to specific programs at the Universities of New South Wales and Newcastle. In general, holders of TAFE Certificates are granted adult matriculation at the University of Newcastle.

The University of Sydney allows entry to relevant courses to holders of the TAFE Civil Engineering Certificate, but does not accept the relevant TAFE Certificate as a means of entry to applied science or electrical engineering.

The University of New South Wales generally admits Certificate holders to appropriate courses in science, applied sciences, architecture, arts and in civil, electrical and mechanical engineering. In mechanical engineering matriculation is allowed to holders of above average passes only. TAFE middle-level Certificates have not been acceptable for medicine or law.

Current Macquarie University policy allows for the admission of persons whose sole qualification is a TAFE Certificate.

Victoria

Possession of a TAFE middle-level Certificate does not, on its own, qualify an applicant for admission to courses at Monash

University. Holders of such certificates must satisfy matriculation requirements by other means.

The University of Melbourne does not exclude entirely a TAFE middle-level Certificate as a possible qualification for admission. The Academic Board is empowered to declare eligible for admission persons who lack qualifications ordinarily required for admission. A TAFE middle level Certificate is not seen as a normal vehicle for admission.

La Trobe University takes great pride in the wide ranging admissions policy which it maintains and claims that some of its initiatives over the years have provided the front running for other institutions. The very small TAFE enrolment (Appendix G, Table 1) was considered to be a function of the course choices that TAFE exit students were likely to make. It was suggested that the courses in arts, economics, science, behavioural sciences and agriculture were not likely to be selected by students from TAFE colleges.

Queensland

A TAFE middle-level Certificate by itself is not sufficient to gain admission to a bachelor degree course at Griffith University. Over the years a number of students (about 4%) who have had a TAFE certificate as their highest qualification, have gained admission to bachelor courses, but this has been under the special admission provisions.

The James Cook University of North Queensland has no general policy on the admission of students with TAFE middle-level qualifications—the question has never arisen. Those students who have completed TAFE middle-level qualifications, and, who have enrolled at James Cook since 1980, do not usually rely upon those qualifications for entry. However, the certificate course in sugar technology from Mackay College of TAFE is accepted as sufficient qualification for entry to degree courses (G. Stokie, pers. comm., 1984).

South Australia

The Flinders University of South Australia will grant provisional matriculation status to applicants who have completed a three year part-time (or longer) certificate course accredited by the South Australian Technician Certificate Board* on the condition that the applicant has completed at least one third of the certificate subjects at credit level or better and that the course has an acceptable content of academic work, i.e. it is not too heavily craft-oriented.

*The South Australian Technician Certificate Board is a joint board of the South Australian Institute of Technology and the South Australian Department of Technical and Further Education for the purpose of accrediting technician certificates.

It is not the policy of the University of Adelaide to accept TAFE middle-level Certificate qualifications for matriculation purposes.

Western Australia

The admissions policy of Mu[illegible] special case. It has an a[illegible] merit and evidence of sui[illegible]

There are no specific matri[illegible]

Adult students without any [illegible] submit a curriculum vita[illegible] scholastic aptitude test. [illegible] record in relevant courses [illegible] certainly gain general admi[illegible]

Applicants are considered on [illegible] examinations, school assess[illegible] other information applicant[illegible] interests and achievements.

Tasmania

It is the practice of the University of Tasmania to admit to bachelor degree courses students who have completed a TAFE certificate in Tasmania provided that they have completed a post-secondary course requiring at least two years of post-secondary study on a full-time basis or its part-time equivalent.

Special entry conditions apply to the faculty of engineering. At the Dean's discretion, a Tasmanian TAFE Certificate in Civil, Mechanical or Electrical Engineering may be accepted as an alternative prerequisite for admission to the first year of the Bachelor of Engineering course. The certificate must include a chemistry unit in order to provide a background for the compulsory Chemistry unit in the first year of the B.E. course. Acceptance will in all cases be subject to satisfactory interview with the Dean (Stronach, 1984).

There is an unusual use of TAFE qualifications for matriculation purposes by the University of Tasmania. A parallel TAFE certificate subject may be substituted for an HSC subject, e.g. the TAFE certificate subject 'Business English' may be substituted for the HSC subject 'English Literature' (University of Tasmania, n.d.).

Australian Capital Territory

The Australian National Uni[illegible] certificates as a basis f[illegible] where

- entry to the certifica[illegible] certificate level;

- the course has extended to at least three years part-time or two years full-time;
- the course has contained a level of English and other [illegible] be adequate for commencing university studies.

6.1.2 The major city institutes of technology

The general admission requirements for major city institutes of technology are success at year 12 level at secondary school or some form of mature-age entry where the qualifications required are not specified, except that the applicant should be 21.

At present, in general, entry requirements for major city institutes of technology are less stringent than they are for universities and in some cases the use of a TAFE middle-level certificate is allowed for specifically. This may well be a reflection among other things of less competition for places available in the major city institutes of technology than for universities.

New South Wales

The New South Wales Institute of Technology allows applicants for admission to satisfy the general requirements by completing an approved certificate course or the Department of Technical and Further Education, although certain faculties have special requirements with respect to subjects studied and level of passes. Neilson (1984) reported that most NSW TAFE heads of schools (a term used in NSW TAFE for the teacher in charge of teaching of a particular discipline throughout the State) considered the current situation as highly satisfactory.

Victoria

The Royal Melbourne Institute of Technology allows a completed certificate course as a general entry requirement for all UG1, UG2 and UG3 courses. Specific prerequisite subjects at Year 12 level may also be required for certain courses.

Queensland

The Queensland Institute of Technology accepts relevant middle-level certificates as providing a sound basis for entry and applicants holding such qualifications are deemed eligible. The detailed requirements vary with faculty.

In addition, for UG3 courses, relevant qualifications, e.g. TAFE electrical certificates or post-trade courses, might be used under special consideration provisions to gain entry. There is also an engineering bridging course conducted by the Queensland Division of TAFE which qualifies the student for admission to the UG3 course.

South Australia

The South Australian Institute of Technology (SAIT, 1984) in its handbook, points to different policies for UG1 and UG2 courses and for UG3 courses.

For UG1 and UG2 courses, holders of advanced certificates are granted registration (i.e. eligibility for admission) on application. In addition, as indicated in Section 5.3.5, holders of other certificates may apply for special consideration. For UG3 courses, holders of a technician (i.e. TAFE middle-level) certificate will be granted association (i.e. eligibility for admission).

Our understanding of the extent to which non-school leavers are admitted to courses at the South Australian Institute of Technology can be obtained from the current handbook (SAIT, 1984). In degree (UG1) courses, 30.3% of all enrolees in 1983 (total enrolled 7162) were non-school leavers; in diploma (UG2) courses 13.3% of 71 enrolees were male; and in associate diploma (UG3) courses 75.3% of the total (366) were male.

It is clear that SAIT admits many mature age students. However, the handbook gives no information on the number who might have submitted TAFE awards as qualifications for admission.

8.1.3 Other colleges of advanced education

The general admission requirements for these institutions are similar to those of the major city institutes of technology.

There are particular cases, where TAFE middle-level Certificates are accepted.

New South Wales

The Riverina College of Advanced Education will grant mature age entry to degree courses to holders of relevant TAFE courses who are over 21 years of age. The situation of people with similar qualifications who are under 21, is being reviewed currently (Julie Briggs, Admissions Officer, Riverina CAE, pers. comm., 1984).

Hawkesbury Agricultural College admits applicants who are not sitting for the HSC, on their individual merits if they are thought to have a reasonable likelihood of success. Success in an associated TAFE certificate course is often used when assessing an application for entry.

However, this policy appears not to be applied in all circumstances. As indicating to Wallace (1984), Hawkesbury College of Advanced Education accepts holders of the Farm Technology Certificate as being matriculated.

Armidale College of Advanced Education has no policy on the acceptance of TAFE middle-level courses as a qualification for admission. In its response to the questionnaire, it was

indicated that it would be rare for a holder of a TAFE Certificate to seek admission. In such circumstances, the TAFE Certificate would form part of a case submitted for consideration for special entry.

Orange Agricultural College admits holders of certificates of Agriculture from the Tamo Agricultural College and the C.B. Alexander Agricultural College to the Associate Diploma of Farm Secretarial Studies and, with appropriate experience, to the Associate Diploma in Farm Management (Kelleher, 1984).

Newcastle College of Advanced Education gives matriculation status to holders of the NSW TAFE Art Certificate who wish to enter the B.A. (Visual Arts) course. Holders of the Welfare Work Certificate are granted admission to the Associate Diploma in Social Welfare provided that they have satisfied the course selection committee that they are suitable persons to work in the social welfare field.

Victoria

The Victorian College of Pharmacy does not accept TAFE studies as being appropriate for admission to the Bachelor of Pharmacy course.

Victoria College accepts relevant TAFE Certificates for entry to most of its degree courses.

Footscray Institute of Technology will consider TAFE middle-level Certificates as sufficient qualifications for admission to its courses, subject to an individual assessment based on an interview by the course department (Bernard Daniels, pers. comm., 1984).

The Melbourne College of Advanced Education has no firm policy on the acceptability of TAFE middle-level courses for its degree courses. The only course in which there is any history of credit being granted is in the Bachelor of Education (Secondary)-Business Studies where a few students have in the past been selected on the basis of two-year middle-level business studies or secretarial certificates.

Phillip Institute of Technology does not have an overall policy on granting admission to applicants who have completed successfully a TAFE middle-level course. Each school, of which there are nine, has its own entry criteria and of those only the School of Business accepts a TAFE middle-level certificate as meeting entry requirements.

Queensland

The Brisbane College of Advanced Education accepts for entry a TAFE qualification which is relevant to the course to which the applicant is seeking admission.

The Darling Downs Institute of Advanced Education has a clear-cut policy for the admission of TAFE students into DCI courses in the

School of Engineering. Students who have completed a Queensland Trade Certificate plus post-trade study, and who are judged by the head of program to show proven study ability and competence in mathematics at senior level, may be granted what is called 'restricted' enrolment (DDIAE, 1983). Entry is available also through the engineering bridging course referred to in Section 8.1.2 with respect to Queensland Institute of Technology.

A good grade in a Business Certificate will assist entry to a UG1 course in business studies.

A 'restricted' enrolment is used principally by the Schools of Engineering and Business Studies. A number of students are taken each year without formal qualifications but with experience regarded as likely to lead to success.

Another use of TAFE qualifications for entrance to a higher education course is reported by Clark (undated). Capricornia Institute of Advanced Education has introduced as a criterion for normal entry into the Associate Diploma in Industrial Instrumentation a basic trade certificate course, usually in electrical or instrument fitting.

In rural Queensland, the Division of TAFE may offer courses at UG3 or fellowship certificate level, if a course at a similar level is not available at a college of advanced education in the vicinity. It is usual for bridging TAFE subjects to be available as one option for entry.

South Australia

The South Australian College of Advanced Education accepts a number of particular TAFE middle-level certificates as qualification for entry for relevant degree courses.

For example, the Business Certificate (Accounting) is accepted for entry to the Bachelor of Business (Accounting), Business Certificate (Banking) for the Bachelor of Business (Banking and Finance), Business Certificate (Secretarial Studies) and Commercial Certificate for the Bachelor of Business (Secretarial Studies) (SACAE, 1984).

Roseworthy Agricultural College does not accept a TAFE middle-level certificate as a sufficient qualification for admission. The handful who have had a TAFE qualification as their highest qualification, and, who have been admitted, were admitted under the mature-age provisions.

Western Australia

The Western Australian College of Advanced Education allows entry to courses on the basis of TAFE qualifications where the TAFE study has been related directly to the course for which entry is sought. The courses to which TAFE qualifications are accepted for entry are usually in the School of Business.

Tasmania

Entry standards at the Tasmanian College of Advanced Education are determined for the separate courses and no negotiations have taken place which might modify these standards for certificated TAFE graduates.

Two schools, viz the School of Business and the School of Engineering, accept a relevant TAFE middle-level Certificate course as qualification for entry to all courses offered by the schools (TCAE, 1984). Courses range from UG3 to UG1.

Australian Capital Territory

The Canberra College of Advanced Education accepts a four-stage TAFE middle-level Certificate as a qualification for admission to all courses.

The Canberra School of Art has no policy on the acceptance of TAFE middle-level courses as a qualification for admission to its courses.

Northern Territory

The only higher education institution in the Northern Territory is the Darwin Community College (Section 3.3.2). The College does not give automatic admission to higher education courses on the basis of relevant TAFE middle-level Certificates, but will take such certificates into account when considering applications for special entry (R. Cohen, pers. comm., 1984).

8.1.4 Classification of admission policies of higher education institutions with regard to relevant TAFE middle-level courses

The classification determined from the preceding information is shown in Table 8.1

8.2 STUDENT DEMAND FOR THE USE OF A SUCCESSFULLY COMPLETED TAFE MIDDLE-LEVEL COURSE AS A QUALIFICATION FOR ENTRANCE

There is almost a complete lack of published data about the size of the demand of TAFE Certificate holders for places in higher education. A relevant question, according to Mathers (1981) is whether any demand, expressed or latent, by students, employers and community associations for such opportunities exists. More fundamentally, it might be asked, if there were sufficient information available to potential students of the opportunities available, would the information itself be likely to generate its own demand.

Experience in the United States where easy access to information about the opportunities does exist, shows that the demand exists also. For example, in the autumn of 1975 more than 4000 students transferred from two-year to senior institutions in North Carolina alone (Johnson, 1977).

Table 8.1

CLASSIFICATION OF ADMISSION POLICIES OF HIGHER EDUCATION INSTITUTIONS WITH REGARD TO RELEVANT TAFE MIDDLE-LEVEL COURSES

POLICY	GENERAL ACCEPTANCE	LIMITED (OR PROVISIONAL) ACCEPTANCE	NO ACCEPTANCE	NO EXPLICIT POLICY
NATURE OF INSTITUTION				
Universities	ANU La Trobe Macquarie Murdoch Newcastle Tasmania Wollongong	Flinders James Cook Melbourne New England NSW Sydney	Adelaide Griffith Monash	
Major city institute of technology	NSWIT QIT RMIT	SAIT		
Other colleges of advanced education	Canberra Qld Clge of Art	Brisbane Capricornia Darling Downs Footscray Hawkesbury Melbourne Newcastle Orange Phillip Riverina South Australian Tasmania Victoria West Australian	Darwin Roseworthy Royal Navy Victorian Clge of Pharmacy	Armidale Canberra Clge of Art Cumberland

Some minimal estimate of the demand by the equivalent of TAFE middle-level Certificate holders in the United Kingdom can be deduced from the applications for entry to the Open University. Thomas (1974) looked at the background of applicants for entry to Open University on the basis of occupation over the years 1971 to 1974 and by education for the years 1971 and 1972.

Technical personnel, clerical and office staff and shopkeepers and service workers all of whom would be expected to have predominantly TAFE type education made up 19% (1971) to 26% (1972) of the applicants. Applicants with an Ordinary or Higher National Certificate or Diploma made up 14.5% of the applicants in 1971 and 15.7% of the applicants in 1972. This was the case even though the Open University has very few courses which are relevant to TAFE studies.

This indicates that the demand for places in higher education by people with TAFE backgrounds could be significant if such students were aware of the possibilities.

Lack of information has been seen as a real barrier to access. Barrett (1981) said that those working with mature age students have long been concerned about the lack of information available to assist those students make well-informed decisions before enrolment. For example, adults considering enrolment in particular courses are often unaware of opportunities, far more suited to their needs and abilities, which are available in nearby institutions or by external study.

A conference in Canberra in 1980 on the transition of adults back to education stressed the importance of providing information on topics such as courses offered, individual institutional requirements, hours of study necessary and prerequisites on a national basis, and suggested that the Commonwealth Department of Education should set up a National Clearinghouse for collecting and disseminating comprehensive information about institutions and courses. It could well be speculated, if such a service existed, whether James Cook University would have found it unnecessary to have developed a policy on the admission of students with TAFE middle-level qualifications because the question had not arisen (Section 8.1.1).

The only way in which a potential student with a TAFE middle-level Certificate qualification might enter a first degree course at the University of Adelaide is under the Special Entry Scheme. The university does not have any information on the number of Special Entry Scheme applicants who have completed TAFE certificate courses.

In 1984, 239 TAFE certificate holders made application for entrance to the Royal Melbourne Institute of Technology.

The Victorian College of Pharmacy has received very few, if any, applications for admission from persons who have completed TAFE middle-level courses.

8.2.1 Statistical information

There is virtually no statistical information available on the number of TAFE middle-level Certificate holders who have applied for admission to higher education courses.

Skull (1982) report that 198 persons with either TAFE or teacher education background had applied in 1982 for admission to UG3 courses at the SAIT, while 182 had applied for admission to UG1 courses. The detailed information is shown in Table 8.2.

Table 8.2

NUMBER OF STUDENTS WITH TAFE OR TEACHER EDUCATION CERTIFICATES WHO APPLIED FOR ADMISSION TO SOUTH AUSTRALIAN INSTITUTE OF TECHNOLOGY IN UG1 AND UG3 COURSES BY DISCIPLINES IN 1982

COURSE LEVEL	UG1	UG3	TOTAL
DISCIPLINE			
Science	11	1	12
Engineering	22	19	41
Business Studies	88	122	210
Art and Design			
Others	61	56	117
TOTAL	182	198	380

8.3 STUDENTS WHO WERE OFFERED ADMISSION ON THE BASIS OF A SUCCESSFULY COMPLETED TAFE MIDDLE-LEVEL COURSE

It is one thing to be eligible for admission and quite another to be offered a place. A general examination of the selection policies of higher education institutions might well indicate the chance an eligible applicant with a TAFE qualification would have against applicants with other qualifications. The institutions are being required to make comparisons between the virtually incomparable and so the mechanics by which this is done is a matter of interest. Perhaps no other issue in tertiary education is more sensitive and more likely to lead to public discontent. Consequently it has been a matter of sme concern to a number of writers and groups.

8.3.1 Earlier research in selection of TAFE exit students for higher education

In fact as long ago as 1960 Fishman and Pasanella said that in the United States admission to college and selection of applicants had probably become the most intensively explored topic in educational-psychological research. They located 580 studies in the period 1950-1960.

In Australia Maddox (1970) examined the intakes into applied science courses at various institutes of technology and found that the admissions offered to both full-time and part-time courses on the basis of technical college certificates were negligible except for the New South Wales Institute of Technology.

Maddox suggested that the low number of technical college certificate holders going forward to institute of technology courses was due to the facts that:

(a) . . . the spread of full secondary education is making the traditional 'back-doors' to higher education increasingly superfluous.

(b) the rising standards of entrance are making it increasingly hard for those who left school early to become full-time tertiary students (Maddox, 1970, p. 82).

The latter reason may well be re-expressed as a growing unwillingness to accept other than stringent standards for entrance in a time of competition for entrance. Such unwillingness could well have prejudiced the chances of selection of holders of TAFE certificates who were interested in enrolling in higher education courses, because those TAFE qualifications were not considered sufficient to meet the required standards. Assuming that it was not the only institution to receive applications from TAFE Certificate holders, the fact that only the NSW Institute of Technology had any enrolments of significance, is consistent with such a view.

8.3.2 The mechanics of selection

In considering the mechanics of selection, Little (1982) suggested a number of general requirements for a satisfactory selection system for university studies.

- While meeting the other requirements of good selection and keeping within available resources, it permits all students who wish to undertake university studies to do so, and to study what they wish, on the basis of maturity, knowledge and experience sufficient to allow them to make an informed judgment.

- It does not generate distortion of student preferences for tertiary courses in that either it focuses on the prospects of entry at the expense of the value of the course to the

individual, or, it affects the range of subjects offered by schools or the character of the process of guidance or selection employed by schools in determining the subject choices of students.

- It minimises (if it cannot eliminate) injustice or differential ease of access on the part of one student vis-a-vis another or one class or group of students vis-a-vis another.
- Selection is based upon criteria and/or procedures which have an acceptable level of reliability and validity.
- It ensures that enrolling students have an acceptable prospect of success in their courses and that students with an unacceptably low prospect of success are blocked.
- Each course is filled with students of the highest quality, consistent with the spread of student applications and with the claim of every other course for quality in its intake.
- There is enough flexibility within the system to allow students, on the basis of experience, to change courses within and across institutions.
- It merits an acceptable level of community support in particular by reconciling the claims of different individuals to access.
- It is manageable in terms of time constraints, organisational requirements and demands on prospective students and is reasonably consistent in its requirements over the range of courses likely to be considerd by one applicant.
- It allows for change in the light of compelling evidence of adverse effects.

Skull (1982) recommended that institutional policies be developed for dealing as equitably as possible with school leavers, mature students and holders of TAFE certificates.

8.3.3 The universities

New South Wales

Applicants for all degree programs at Macquarie University are assessed on academic merit. Commercial, professional or industrial experience is not considered in the assessment of candidates.

Applicants for admission are divided into two categories. Category A applicants are all those who are candidates for the current New South Wales HSC examination and are assessed solely on their aggregate mark in that examination. Category B applicants are all others including those with TAFE middle-level Certificates. Category A and Category B applicants are ranked separately and the cut-off point for each is decided from year to year by the university.

Category B applicants are ranked on a five point scale (1-5 in increasing order of merit) and a decision made by the Undergraduate Studies Committee on the cut-off rank for each program in the university. The cut-off points vary from year to year according to the number and quality of the applications for the limited number of places available. The scaling given to TAFE Certificate holders is 1, 2 or 3 on the five point scale depending upon the quality of their results. Such a ranking would not obtain a student a place in the more competitive faculties such as law.

At the University of Newcastle, TAFE Certificate holders can gain entry to all courses except those such as computing where there is a shortage of places. It is possible, however, for TAFE Certificate holders to obtain access to these programs by enrolling in courses and transferring to the computer courses later (Neilson, pers. comm., 1984).

Victoria

The University of Melbourne has decentralised the selection process inside the university. Selection committees integrate, in rank order, applications from individuals with diverse academic backgrounds. The mechanism by which this is done is not stated, but, where applicants have not attempted the Victorian Higher School Certificate examination, the Selection Committee is charged with according their qualifications such standing as will enable their academic merit to be compared with other applicants for selection.

South Australia

Wilton (1982) described how the selection process is operated by the University of Adelaide and Fischer (1982) discussed what is called the 'special entry scheme' in particular.

In South Australia the two universities, the Institute of Technology and the six colleges of advanced education established the South Australian Tertiary Admissions Centre (SATAC) in order to receive and process the applications for admission to undergraduate courses. SATAC processes the applications but does not make the selection; this is made by the institutions themselves.

At the University of Adelaide each faculty has a selection committee which shall:

- indicate and rank those candidates to whom it is prepared to offer admission;
- indicate those whom it judges not to have the minimum requirements for admission and whom therefore it does not wish to select.

It is the policy of the University Council that selection will be based as far as is practicable on academic merit. In the case of applicants who have attempted the South Australian Matriculation Examination, academic merit is assessed on applicants' marks in their best five subjects.

Not all applicants (including many of those who have completed a TAFE middle-level course) offer the South Australian Matriculation as a qualification for admission. In fact in 1984, Fischer (1984) reported that 46% of the new intake did not take the South Australian Matriculation Examination in 1983.

Selection committees need to give special consideration to these applicants among whom are those (in fact, 3-4%) seeking admission under the Special Entry Scheme (SES). Comparison of these applicants with those with a matriculation background is difficult and therefore in the case of SES applicants the task of selection has been simplified by granting separate quota places of selection (85 in 1985).

Applicants for these places are not allowed to have matriculated. This policy is justified by the argument that, if they have, they can be considered for selection in the normal way.

Fischer (1982) pointed out that this policy deprived low matriculants of ever getting into the university. He said:

> If matriculation is at 295 marks, it would almost always be easier for a 294 non-matriculant with (say) a Department of Further Education qualification to get into a particular course through the SES, than a 295 matriculant with the same DFE qualification at the same standards of achievement (Fischer, p. 49).

In making its selection, the university takes into account

- the information given in the application form
- the result of an aptitude test
- the assessment of an essay which is doubled marked
- the result of an interview, if required (University of Adelaide, 1985).

Previous success in a course of study is taken into account also. The university has no record of how many applicants under the scheme who have completed TAFE Certificate courses were offered admission. However, Osman (1981) found that in 1980 of 419 entrants under the scheme, 67 (16.0%) had TAFE qualifications.

The interview panel consists of two or three people, at least one from the faculty into which the student is seeking entry. The quotas are filled in arts, economics and music where about half of those interviewed gain a place. The quotas in other faculties are not filled generally—partly because many of them require strong backgrounds in science and mathematics.

The Flinders University does not have many applicants for admission on the basis of TAFE Certificate courses and it has been reported that these applicants are admitted almost invariably. In the past this has been because there has been little competition for admission as quotas have been barely filled. However, even though competition for admission is expected to increase, it has been reported that it is likely that applicants with good certificate records will get preference over marginal matriculants.

Western Australia

Murdoch University does not make any claim about precision in selection. Special selection committees are established to consider applications for admission. Selection is based on the judgment by the committee of the individual merit of the candidate on consideration of academic record, employment history, evidence of motivation and special interest. This admittedly imprecise method is preferred to the alternative of setting down rigid matriculation qualifications.

Adult students with a successful record in relevant TAFE courses would almost certainly gain general admission to Murdoch University, although they would not be admitted automatically to programs subject to quota. Whether this almost automatic general admission will continue in the face of increased pressure for places, particularly from school leavers, is difficult to predict.

Tasmania

The University of Tasmania is virtually quota free and therefore the question of selection between eligible applicants does not arise.

8.3.4 The major city institutes of technology

New South Wales

Neilson (pers. comm., 1984) reported that, for the past ten years, the New South Wales Institute of Technology has accepted a TAFE Certificate for general entry into its courses (Section 8.1.2). Where a shortage of student places has existed, certificate holders have had to compete with persons holding a normal matriculation.

Victoria

In 1984, the Royal Melbourne Institute of Technology admitted 91 out of the 239 applicants for admission who held TAFE Certificates.

Queensland

Certificate holders are admitted to higher education courses at Queensland Institute of Technology subject to quota. An offer of a place is dependent upon the selection score accorded to an applicant. In the case of TAFE Certificate holders, the score is applied usually according to a sliding scale based on grades achieved throughout certificate studies. The actual conversion formula varies from faculty to faculty. An example is shown in Table 8.3.

Table 8.3

CONVERSION TABLE FOR C
TO TERTIARY ENTRANCE
QUEENSLAND INS

NOTIONAL CERTIFICATE PERFORMANCE LEVEL	3.5	3.6-3.9	4.				
NOTIONAL TERTIARY ENTRANCE SCORE	812	842	872	902	932	962	994

In engineering, certificate holders are allocated a score of 922 at which level entry is almost guaranteed. Applicants with credit level work in a Certificate of Business Studies are given certain entry.

Western Australia

From the view of the Technical Education Division (TED) of the Education Department in Western Australia, the agreement between the Western Australian Institute of Technology (WAIT) and itself (Section 7.4) has not worked

It was considered by th
(particularly engineering) pr
certificate graduates. TED r
preference by the differ
authorities. They saw WAI
values. They suggested that
policy of TAFE which involve
within the course, but contin
of applying quality control a

The effect of this preferenc
were not competing succes
leavers, even those with rat
has been for WAIT to provide
graduates. This is consiste
University of Adelaide (Secti

8.3.5. Other colleges of a

Queensland

Brisbane College of Advanced
system to that used by the
(Section 8.3.4). A grade po
TAFE course and a Notional T
from a conversion table.

South Australia

The South Australian College of Advanced Education gives a notional matriculation score to holders of TAFE middle-level Certificates who wish to enter the Bachelor of Business (Accountancy), Bachelor of Business (Banking and Finance) and the Bachelor of Business (Office Administration). Other people have to sit for the tertiary entrance examination in order to be considered for entry to these courses. In this way the TAFE certificate holders are ranked against each other.

There is no rigid mechanism for comparing these students against those offering matriculation for entry and those entering as mature-age students—rather it is a matter of judgment. Those responsible for the selection try to achieve a balance between the groups offering for admission without allowing a rigid sub-quota to be predetermined.

8.3.6 Statistical information

Very little statistical information is available on the number of TAFE middle-level Certificate holders who are offered enrolment on the basis of that certificate. Skull (1982) reported some data which are shown in Table 8.4.

The figures show that for SAIT, applicants with TAFE middle-level qualifications are twice as likely to be accepted for UG3 courses as for UG1 courses. By and large TAFE middle-level certificate holders had a one in three chance of being accepted.

Some isolated figures have been provided by some institutions.

In 1983, there were 19 applicants for places in UG3 courses at the Queensland College of Art by people with TAFE middle-level qualifications. Of these, nine were offered places.

In the first semester of 1983, there were 103 applicants for admission to Canberra CAE on the basis of TAFE qualifications. Of these 79 were offered places.

In 1984 at the ANU, 100 persons with certificate or professional qualifications applied for admission. Seventy were offered places.

8.3.7 Another approach to selection—the motivation test

One danger in the selection processes being used by many higher education institutions is that they may lead to people with little or no vocational intent being admitted to vocational courses. Such outcomes could tend to discriminate against holders of TAFE middle-level Certificates who, although they may find it difficult to compete with other candidates for entry on the basis of some criteria, usually have illustrated vocational motivation by the very fact of having pursued successfully a vocational course while working. It might be fairer if selection took account of the intention of candidates to seek their future employment in the vocation served by the course.

TABLE B.8

NUMBER OF STUDENTS WITH TAFE OR TEACHER EDUCATION CERTIFICATES WHO WERE OFFERED ENROLMENT AT SOUTH AUSTRALIAN INSTITUTE OF TECHNOLOGY IN UG1 AND UG3 COURSES BY DISCIPLINE IN 1982 AND PERCENTAGE OF TOTAL APPLICANTS

COURSE LEVEL	UG1		UG3		TOTAL	
DISCIPLINE	NUMBER	% OF APPLICANTS	NUMBER	% OF APPLICANTS	NUMBER	% OF APPLICANTS
Science	1	9.09	1	100	2	18.18
Engineering	4	18.18	13	68.42	17	41.46
Business Studies	23	26.14	46	37.70	69	32.86
Others	18	69.91	43	70.49	61	69.13
TOTAL	46	29.87	103	58.00	149	39.81

Parkinson (1982) commented that selection on this basis was not easy and that there was very little research into the procedures. However, there is at least one piece of work in the United Kingdom which has attempted to come to terms, in some measure, with the problem.

In this work (Derby College of Further Education, 1978), there is [illegible] the [illegible] the [illegible] [illegible] [illegible]

8.4 STUDENTS WHO WERE OFFERED ADMISSION ON THE BASIS OF A SUCCESSFULLY COMPLETED TAFE MIDDLE-LEVEL COURSE AND WHO ACTUALLY ENROLLED

8.4.1 Earlier research

In past years a remarkable outcome of the admission and selection policies of institutes of technology according to Maddox (1970) was the very small number who entered full-time diploma courses through the completion of a technical college certificate.

In 1974, Barnard and Kelly undertook research into some characteristics of commencing students at eight universities (viz. Adelaide, New England, New South Wales, Tasmania, Wollongong, Western Australia, La Trobe and James Cook). They found that 4.8% of the students in the sample (n = 8300) studied at a technical college before enrolling at the university. More than 60% of these had enrolled in arts or commerce/economics (Barnard and Kelly, 1976).

In 1975, Barnard extended the above research to include all Australian universities and some thirty colleges of advanced education. In this survey 5.7% of university students (n = 20 373), 9.3% of metropolitan college of advanced education students (n = 10 333) and 5.1% of country college of advanced education students (n = 1355) studied at a technical college before enrolling at a higher education institution (Barnard, 1976).

Gilmour and Lansbury (1978) developed some statistics on the numbers and percentages of entrants to Melbourne universities in selected years who did not enter direct from Victorian secondary schools. The information collected is shown in Table 8.5.

Table 8.5

NUMBERS AND PERCENTAGES OF ENTRANTS TO MELBOURNE UNIVERSITIES IN SELECTED YEARS WHO DID NOT ENTER DIRECT FROM VICTORIAN SECONDARY SCHOOLS*

YEAR	TOTAL STUDENTS	NUMBER NOT FROM VICTORIAN SECONDARY SCHOOLS	% NOT FROM VICTORIAN SECONDARY SCHOOLS
University of Melbourne			
1969	2926	375	12.7
1970	2941	522	17.7
Monash University			
1970	2204	236	9.9
1971	2327	267	11.5
1972	2474	685	27.6

*Gilmour and Lansbury, 1978.

Clearly no inference can be drawn from the percentage of students who entered Victorian universities on the basis of TAFE Certificate qualifications.

Gibb (1979) noted that the number of entrants under mature age admission schemes was generally relatively small and limited to arts, economics, commerce or education, unless special capacity to cope with mathematical, scientific or technical studies could be demonstrated (Section 8.3.3). He pointed to the special case of Murdoch University (Section 8.1.1) where the proportion of special entrants who were admitted ranged from 64.1% to 78% of all new students over the years 1975 to 1979.

8.4.2 National Statistics Collection

The Commonwealth Tertiary Education Commission (CTEC) seeks information from students when they enrol in higher education institutions, on the highest level of education reached. One response allowed for is a technical college certificate.

Consolidated information on the nature of the educational background of entrants to higher education courses is published by the CTEC. The information is available by institution, sex, highest educational level reached and by whether the student is full- or part-time. Collations of the information available are show in Appendices G, H, and I.

The universities (Appendix G)

Table 1, Appendix G, shows the number of students commencing an undergraduate bachelor course who had given a technical college qualification as the highest qualification attempted by type of attendance, sex and university for the years 1980-1983.

Over that time some 4000 students with a technical college background have been admitted to undergraduate bachelor courses at Australian universities. Of these 69% were part-time (or external) and 58% were male.

In absolute terms, the universities admitting the greatest number of students with TAFE backgrounds were Macquarie and New England. Both these universities provide facilities for external studies.

In relative terms over the years 1980-1983, the total proportion of enrolees in universities who gave a TAFE qualification as their highest educational qualification attempted (but not necessarily successfully) was between 2 and 3% (Table 2, Appendix G).

A comparison with the figures obtained by Barnard and Kelly (1976) and Barnard (1976) suggests that the situation has deteriorated since the mid-70s. For the eight universities studied by Barnard and Kelly, 2.8% of the commencing students in 1980–1983 had TAFE backgrounds compared with 4.8% in 1974 and in 1975, 5.7%.

Certain universities stood out as having relatively far more enrolments from the TAFE sector than other universities in general.

In overall enrolments, the University of Wollongong has tended to have over 10% of its total enrolments from students whose highest qualification was from the TAFE sector. The University of New England, University of Newcastle and Macquarie University also have a much higher proportion than most.

With regard to full-time students only (Table 3, Appendix G) overall, only just over 1% of the admissions to universities for the years 1980-1983 had a technical college certificate as the highest educational qualification with the most prominent being again Wollongong, New England, Newcastle and Macquarie. With part-time students, over 5% of admissions had this background. Wollongong and Newcastle were both prominent in admitting such students, in each case averaging over the years more than 10% of the total part-time admissions (Table 4, Appendix G).

The larger than usual enrolment of TAFE exit students at the University of New England does not reflect any intended policy, but appears to be a chance phenomenon consequent upon the large external enrolment.

In the case of the University of Wollongong, there is a clear policy to accept for admission students who have completed a TAFE two year or three year certificate.

Colleges of advanced education (Appendices H and I)

Over the years 1980-1983, the total proportion of enrolments in colleges of advanced education who gave a TAFE qualification as their highest educational qualification was between 3.46% and 5.43% (mean 4.34%). This is about 50% more than the proportion enrolled in the universities (Table 1, Appendix H).

Colleges of advanced education in New South Wales and Tasmania stood out as having more enrolments from the TAFE sector than those from other States.

In the case of Tasmania, a possible explanation lies in the fact that the Tasmanian College of Advanced Education is the only general higher education institution in Northern Tasmania (The Australian Maritime College is a specialist institution). That is, those students with TAFE backgrounds, who live in Northern Tasmania and who are seeking higher education, tend to enrol at the college of advanced education. Also TAFE teacher education is provided by the Tasmanian College of Advanced Education.

In the case of New South Wales, the findings are consistent with those of Maddox (1970) who found that admissions to part-time courses on the basis of technical college certificates was negligible except for the New South Wales Institute of Technology.

Among the major city institutes of technology (Appendix H), the New South Wales Institute of Technology stands out as accepting a higher overall proportion of TAFE exit students than the others. However, with regard to full-time and external students, the Western Australian Institute of Technology stands out.

Among the other colleges of advanced education (Appendix I)*, where the mean proportion of TAFE exit students in the years 1980 to 1983 has been just less than 4% of total enrolments, Mitchell CAE, Orange Agricultural College, Riverina CAE and Sydney CAE in New South Wales and Phillip Institute of Technology and Hawthorn Institute of Education in Victoria stand out. For the purposes of this articulation discussion, Sydney and Hawthorn can be disregarded because much of their TAFE exit enrolment is a consequence of their being institutions for the education of TAFE teachers.

In New South Wales Mitchell shows a larger proportion of part-time students with a TAFE background than do the others, while Orange and to a lesser extent Riverina show a larger proportion of external students.

In Victoria, Phillip shows a higher proportion of full-time students with a TAFE background than do the other colleges of advanced education. This can be attributed to the fact that a large number of Tertiary Orientation Programme (TOP) students are admitted to courses rather than to any policy of admitting holders of TAFE middle-level Certificates.

Hawkesbury Agricultural College has had over the years a much larger than average proportion of part-time and external students with a TAFE background. The college suggests that many of these would be in the Graduate Diploma in Extension/Social Communication which is directed at experienced people many of whom have TAFE qualifications.

The nil figures of the Darling Downs Institute of Advanced Education do not reflect the actual situation. The problem lies in the statistical collection where TAFE students were not differentiated. It was estimated that approximately 90-100 enrolments in 1983 would have offered a TAFE certificate as a qualification for admission.

8.4.3 Enrolments in higher education institutions in South Australia

The South Australian Tertiary Admission Centre analyses its enrolments by seven categories one of which is special entry, i.e. mature age and other applicants with no formal qualifications at matriculation or equivalent level. This

*Appendix I has taken account of recent amalgamations. For example for 1980 the sum of Burwood, Rusden and Toorak State Colleges and Prahran College of Advanced Education (the new Victoria College) is shown as Victoria College.

category (viz category 7) contains those who have submitted a TAFE middle-level Certificate as a qualification for admission (Oxenberry, 1980-1984). The table in Appendix J shows the number and percentage of the total student population within category 7 by the disciplines considered in this report and by institution from 1980 to 1984.

The absolute number and proportion of total enrolments of special admissions to higher education institutions has increased in the years 1980-1984. In the major disciplines considered in this report, special admission is most common in business studies and art and design at the SACAE and business studies at SAIT.

The 'others' category for SACAE includes disciplines such as Aboriginal studies, training and development, adult and further education and technical and further education. The latter two of these have been excluded from this study—the other two are courses where adult entry is encouraged and a TAFE qualification would be no more relevant than many others.

For SAIT the 'others' category is predominantly community studies and social work—for Flinders University, it is arts, economics and education. Again a TAFE qualification would often be no more relevant than many others.

Therefore in South Australia a relevant TAFE qualification tends to be accepted for admission to higher education courses most often in business studies and art and design.

8.4.4 Statistical information derived from the questionnaire

The responses to the questionnaire were such that only limited information was obtained. This information, together with that provided on computer print-out from some other higher education institutions, is shown in Tables 8.6–8.11.

Overall about 40% of the university students who enrolled in bachelor courses at universities in the years 1980-83 are included in Table 8.6, but the figures for the major city institutes of technology and the other colleges of advanced education are only 5.6% and 10.7% respectively.

To the extent that the university sample can be considered to reflect the national position, at least 18% of the TAFE exit students enter science courses and 11% engineering courses. The 26% in the 'other' category are often students in arts or education.

No conclusions can be drawn from the figures for the major city institutes of technology.

The figures for the other colleges of advanced education indicate that about one-third of the TAFE exit students enter business studies courses. Those in the 'other' category are often studying education.

Table 8.6

NUMBER OF STUDENTS WHO ENROLLED IN BACHELOR COURSES AT UNIVERSITIES ON THE BASIS OF TAFE CERTIFICATE QUALIFICATION BY YEAR AND DISCIPLINE

YEAR		1980	1981	1982	1983	1984	TOTAL
DISCIPLINE							
Science	f/t	26	27	33	20	21	127
	p/t	28	57	49	36	35	205
	u/s	12	-	-	-	-	12
	Total	66	84	82	56	56	344
Engineering	f/t	19	43	26	17	24	129
	p/t	23	23	14	11	4	75
	Total	42	66	40	28	28	204
Business Studies	f/t	15	8	15	6	-	44
	p/t	14	12	6	5	3	40
	u/s	8	-	-	-	-	8
	Total	37	20	21	11	3	92
Others	f/t	60	38	39	29	58	224
	p/t	36	46	34	52	48	216
	u/s	69	-	-	-	-	69
	Total	165	84	73	81	106	509
Undifferentiated	f/t	28	31	19	23	14	115
	p/t	119	116	105	118	82	540
	u/s	-	27	18	27	43	115
	Total	147	174	142	168	139	770
TOTAL		457	428	358	344	332	1919

u/s = unspecified

Number of respondent institutions = 8

Australian National University
Macquarie University (did not differentiate enrolments by category)
Murdoch University—science and others only
University of Melbourne (includes TOP students)
University of New England—principally economic studies, arts, rural science and resource management
University of New South Wales
University of Tasmania (did not differentiate enrolments)
University of Wollongong (1980-83 only)

Table 8.7

NUMBER OF STUDENTS WHO ENROLLED IN UG1 COURSES AT CENTRAL CITY INSTITUTES OF TECHNOLOGY ON THE BASIS OF TAFE CERTIFICATE QUALIFICATION BY YEAR AND DISCIPLINE

YEAR		1980	1981	1982	1983	1984	TOTAL
DISCIPLINE							
Science	f/t	-	-	-	-	-	-
	p/t	-	-	-	4	8	12
	u/s	-	-	1	-	-	1
	Total	-	-	1	4	8	13
Engineering	f/t	-	-	-	-	-	-
	p/t	-	-	-	-	-	-
	u/s	-	-	3	-	-	3
	Total	-	-	3	-	-	3
Business Studies	f/t	-	-	-	-	-	-
	p/t	-	-	-	5	6	11
	u/s	-	-	19	-	-	19
	Total	-	-	19	5	6	30
Others	f/t	-	-	-	-	-	-
	p/t	-	-	-	6	10	16
	u/s	-	-	15	-	-	15
	Total	-	-	15	6	10	31
TOTAL		-	-	38	15	24	77

u/s = unspecified

Number of respondent institutions = 2

Queensland Institute of Technology
South Australian Institute of Technology (after Skull, 1982)

Table 8.8

NUMBER OF STUDENTS WHO ENROLLED IN UG3 COURSES AT CENTRAL CITY INSTITUTES OF TECHNOLOGY ON THE BASIS OF TAFE CERTIFICATE QUALIFICATION BY YEAR AND DISCIPLINE

YEAR		1980	1981	1982	1983	1984	TOTAL
DISCIPLINE							
Science	f/t	-	-	-	-	-	-
	p/t	-	-	-	-	-	-
	u/s	-	-	1	-	-	1
	Total	-	-	1	-	-	1
Engineering	f/t	-	-	-	-	-	-
	p/t	-	-	-	22	28	50
	u/s	-	-	10	-	-	10
	Total	-	-	10	22	28	60
Business Studies	f/t	-	-	-	1	-	1
	p/t	-	-	-	1	2	3
	u/s	-	-	35	-	-	35
	Total	-	-	35	2	2	39
Others	f/t	-	-	-	-	-	-
	p/t	-	-	-	-	-	-
	u/s	-	-	27	-	-	27
	Total	-	-	27	-	-	27
TOTAL		-	-	73	24	30	127

u/s = unspecified

Number of respondent institutions = 2

Queensland Institute of Technology
South Australian Institute of Technology (after Skull, 1982)

Table 8.9

NUMBER OF STUDENTS WHO ENROLLED IN UG1 COURSES AT OTHER COLLEGES OF ADVANCED EDUCATION ON THE BASIS OF TAFE CERTIFICATE QUALIFICATION BY YEAR AND DISCIPLINE

YEAR		1980	1981	1982	1983	1984	TOTAL
DISCIPLINE							
Science	f/t	-	-	-	5	7	12
	p/t	-	-	-	-	-	-
	Total	-	-	-	5	7	12
Business Studies	f/t	2	1	3	17	26	49
	p/t	3	13	17	29	40	102
	u/s	21	23	28	28	57	157
	Total	26	37	48	74	123	308
Art and Design	f/t	-	-	-	29	3	32
	p/t	-	-	-	-	-	-
	Total	-	-	-	29	3	32
Others	f/t	-	-	1	18	-	19
	p/t	-	1	1	3	8	13
	u/s	24	25	42	18	48	157
	Total	24	26	44	39	56	189
TOTAL		50	63	92	147	189	541

u/s = unspecified

Number of respondent institutions = 5

Brisbane College of Advanced Education
Hawkesbury Agricultural College
South Australian College of Advanced Education
Tasmanian College of Advanced Education
Victoria College

Table 8.10

NUMBER OF STUDENTS WHO ENROLLED IN UG2 COURSES AT OTHER COLLEGES OF ADVANCED EDUCATION ON THE BASIS OF TAFE CERTIFICATE QUALIFICATION BY YEAR AND DISCIPLINE

YEAR		1980	1981	1982	1983	1984	TOTAL
DISCIPLINE							
Science	f/t	-	-	-	-	2	2
	p/t	-	-	9	-	1	10
	Total	-	-	9	-	3	12
Business Studies	f/t	-	-	2	6	4	12
	p/t	-	-	23	40	40	103
	Total	-	-	25	46	44	115
Art and Design	f/t	-	-	8	27	19	54
	p/t	-	-	5	6	-	11
	Total	-	-	13	33	19	65
Others	f/t	2	53	21	105	89	270
	p/t	31	21	12	10	5	79
	u/s	-	-	40	10	4	54
	Total	33	74	73	125	98	403
TOTAL		33	74	120	204	164	595

u/s = unspecified

Number of respondent institutions = 6

Brisbane College of Advanced Education
Hawkesbury Agricultural College
Queensland College of Art
South Australian College of Advanced Education
Tasmanian College of Advanced Education
Victoria College

Table 8.11

NUMBER OF STUDENTS WHO ENROLLED IN UG3 COURSES AT OTHER COLLEGES OF ADVANCED EDUCATION ON THE BASIS OF TAFE CERTIFICATE QUALIFICATION BY YEAR AND DISCIPLINE

YEAR		1980	1981	1982	1983	1984	TOTAL
DISCIPLINE							
Science	f/t	-	-	-	4	2	6
	p/t	-	-	2	-	-	2
	Total	-	-	2	4	2	8
Business Studies	f/t	-	-	1	-	-	1
	p/t	-	2	3	1	6	12
	u/s	-	2	6	5	8	21
	Total	-	4	10	6	14	34
Art and Design	f/t	4	4	5	2	2	17
	p/t	5	1	9	10	11	36
	Total	9	5	14	12	13	53
Others	f/t	-	2	3	6	12	23
	p/t	5	10	29	32	39	115
	Total	5	12	32	38	51	138
TOTAL		14	21	58	60	80	233

u/s = unspecified

Number of respondent institutions = 5

Brisbane College of Advanced Education
Hawkesbury Agricultural College
South Australian College of Advanced Education
Tasmanian College of Advanced Education
Victoria College

8.5 SUCCESS OF STUDENTS ENROLLED ON THE BASIS OF A SUCCESSFULLY COMPLETED TAFE MIDDLE-LEVEL COURSE

8.5.1 Earlier research

Historically in Australia there has been very little information on the success of students entering higher education on the basis of TAFE middle-level Certificate courses.

Work has been done in the United States on the success of transfer students from junior to senior colleges compared with what are often called 'native' students.

Knoell and Medsker (1965) studied over 7000 transfer students and found that 45% of the transferees graduated in the minimum time of two years from transfer, 62% graduated within three years and 75% graduated eventually. These results were not dissimilar from those found for native students.

Maddox (1970) indicated that at that time no figures were available in Australia on the performance of applied science students in colleges of advanced education on the basis of different entry qualifications.

Barrett and Powell (1980) noted that many institutions had been reluctant to admit mature age unmatriculated students because of fears that standards would be lowered or failure rates would be intolerably high.

Such fears have proved to be without foundation. Powell (1976) said that one of the few claims which could be made with some confidence about the prediction of academic success is that it is strongly associated with the motivation of students and with their having a clear idea about what they want to study and why they wish to study it. By virtue of their past study records, TAFE exit students would have both these qualities and therefore have the potential for success. In reality the situation is not nearly so clear.

8.5.2 The universities

New South Wales

The University of New South Wales has had a scheme for the admission of mature age unmatriculated (MAU) students for many years and this scheme has been subjected to a number of evaluations. Although precise comparisons between the MAU scheme and a scheme for the admission of students on the basis of TAFE middle-level Certificate courses might be drawing a long bow, there are enough parallels to suggest some trends.

The MAU students have performed generally very commendably and Barrett (1977) suggested that this is a result to a large extent of motivation and commitment to study. Students who have completed successfully a part-time TAFE middle-level Certificate course could be argued to have these qualities in large measure.

In her work on MAU students, Barrett suggested that:

> . . . studying courses designed for 17-18 year olds, using text books aimed at this age group and being subject to the pressures associated with sitting for the H.S.C. examination may not be the best preparation for older students wishing to enter university. Much of what is learnt in the school environment may need to be unlearned in the transition from secondary student to university student (p. 12).

This conclusion may well be relevant in choosing between TAFE exit and secondary school students on the basis of their potential success. The pointers are that successful TAFE middle-level Certificate students are likely to be successful in higher education studies in relevant courses, although it would follow from the work of Barrett and Powell (1980) that students intending to follow commerce and science based courses may require some bridging study depending on the extent of their work experience.

The University of Wollongong has undertaken one survey which is relevant to this question. In one particular subject (Quantitative Methods, an economics subject in the Commerce and Arts degree) 411 students were divided into two categories:

Category A: students who had completed the HSC in the previous year—286 students;

Category B: other students including those with overseas qualifications, TAFE certificates and HSC from previous years.

The pass rate of both categories differed very little.

Macquarie University has provided some figures on the success of those students who enrolled, and who had a TAFE Certificate qualification (not necessarily used for the purpose of admission). Although the figures are limited by the definition of success used in this project (i.e. a pass in all subjects enrolled in in the first year of higher education), they show that by and large students in a degree course with a TAFE background did less well than the total sample.

Victoria

The University of Melbourne has made some studies of the progress of students who entered that university with TAFE qualifications (Anwyl, 1984). The university is unable to differentiate between TAFE Certificate qualifications and TOP qualifications, but the results do give some useful indications. The intakes of the years 1980 and 1982 have been considered.

In 1980 there were 23 students, 14 of whom were enrolled in the second year in 1981 and eight in the third year in 1982. Of the original 23, three others were still enrolled at the university, but not in the third year of the original course.

In 1982 there were 24 students of whom 20 completed the year. Of these 20, 18 had an average weighted mark sufficient to be considered successful, i.e. 75% of the original enrolment had at least a reasonably successful year.

South Australia

Fischer (1982) examined the performance of entrants under the Special Entry Scheme (SES) to the University of Adelaide.

He reported that the evidence on their performance is mixed. Some (particularly in arts) did well; others not so well. In general those who started well, continued well. Those who did not start well tended to leave the course and not to re-enrol.

Flinders University reported that it has admitted very few with TAFE Certificate qualifications to its courses and, since its records do not identify these, it is not possible to indicate their level of success.

8.5.3 Major city institutes of technology

Victoria

The success rate of TAFE entrants, by comparison with matriculants, has not been monitored.

South Australia

Some anecdotal evidence on the comparative success of matriculants and persons with technical certificate qualifications in SAIT engineering courses has been provided by Mr T.G. Parker, the Senior Training Officer of the Electricity Trust of South Australia (ETSA).

The Trust conducts two training schemes. It sponsors about six matriculants annually for direct entrance to SAIT and provides internal cadetships to holders of TAFE certificates who have proved their ability by completing at least the first year of a full-time engineering course.

It is reported that the cadets with a technical college background excel by comparison with the school leaver matriculant. In particular the technical college certificate holder has little difficulty with the applied mathematics of the degree course while applied mathematics often becomes a stumbling block for the school leaver matriculant.

The South Australian Institute of Technology has taken out some figures on the success of holders of the Business Certificate (Accounting) in B.A. (Accounting) courses. These are shown in Table 8.12.

The figures show that over the years 1976-1979 about 16% of these students have graduated. These compare with something like 45% of the total student body. In fact the number of preclusions of TAFE exit students has exceeded the number of graduates.

Table 8.12

BUSINESS CERTIFICATE (ACCOUNTING) STUDENT PROGRESS IN B.A. (ACC) SAIT

COMMENCED	TOTAL	NO. PRECLUDED	NO. GRADUATED	NOTICE OF PRECLUSION OR NP LETTER	STILL ON COURSE 18.9.84
1976	16	2	4	-	NIL
1977	18	7	6	-	1
1978	20	4	2	-	2
1979	21	3	1	-	4
1980	23	1	-	5	9
1981	24	2	-	1	8
1982	5	-	-	2	3
1983	19	-	-	1	8
1984	5	-	-	-	4

Figures provided by Professor Ian Scarman, SAIT.

8.5.4 Other colleges of advanced education

Victoria

Students admitted to the Bachelor of Education (Secondary)–Business Studies at the Melbourne College of Advanced Education on the basis of a two-year middle-level business studies certificate have performed extremely well usually. The performance of students admitted with a two-year secretarial certificate was described as somewhat of a 'mixed bag'.

Queensland

In the early years of the 'restricted enrolment' scheme (Section 8.1.3) at Darling Downs Institute of Advanced Education, the students had a very poor record. However, in more recent times, the majority have been very successful and in fact, in the first semester of 1984, restricted enrolment students had achieved better results than the overall average for the institute.

South Australia

Swain (1975) concluded that mature students who enrolled in 1975 at the Adelaide College of Advanced Education (now the South Australian College of Advanced Education) performed at least as well as the post-matriculation enrollees in their first year of studies.

Some work on the progress of students admitted on the basis of the TAFE Business Certificate (Accounting) to the Bachelor of Business (Accountancy and Banking and Finance) at the South Australian College of Advanced Education, has been undertaken by

Mr John B. Shelley. He found that in the years 1982 and 1983, 60% of the students with a TAFE background had passed in all subjects (the criterion of success used in this paper) compared with 43% of those who had matriculated in the traditional way. These figures are in stark contrast to those found for similar students by the South Australian Institute of Technology (Section 8.5.3).

8.5.5 Statistical information derived from the questionnaire

Again the responses to the questionnaire were such that only limited information was obtained. This information together with that provided on computer print-outs from some other higher education institutions is shown in Tables 8.13–8.16.

For the universities which responded, results were provided for over 90% of the students concerned. Of these 50% were successful in every subject attempted in their first year of enrolment.

For the other colleges of advanced education, results were provided for just under 50% of the students concerned. Of these, 62% were successful in every subject attempted in their first year of enrolments.

No useful figures were obtained for the main city institutes of technology.

The limited results obtained suggest that the students who entered higher education institutions on the basis of a TAFE middle-level Certificate were reasonably successful in their higher education studies.

Some overall figures were provided for the Tasmanian College of Advanced Education. Over the years 1980-1983, 272 students have been admitted to that institution on the basis of TAFE middle-level Certificates. Of these, 106 (39%) either failed the first year or withdrew without completing units and did not enrol for a second year; that, is some 61% were successful. This outcome is consistent with that outlined above.

Table 8.13

SUCCESS OF STUDENTS WHO ENROLLED IN BACHELOR COURSES AT UNIVERSITIES ON THE BASIS OF TAFE CERTIFICATE COURSES (PERCENTAGE OF TOTAL TAFE STUDENTS REPORTED)

YEAR		1980	1981	1982	1983	TOTAL
DISCIPLINE		STUDENT SUCCESS %				
Science n = 275	f/t	46	63	50	45	52
	p/t	37	58	43	38	43
	u/s	75	-	-	-	75
	Total	48	48	45	40	46
Engineering n = 175	f/t	65	42	29	41	43
	p/t	35	13	57	27	31
	Total	49	32	39	36	38
Business Studies n = 91	f/t	33	63	56	33	45
	p/t	36	33	33	60	38
	u/s	38	-	-	-	38
	Total	35	45	47	45	41
Others n = 389	f/t	72	52	56	48	58
	p/t	58	52	60	52	55
	u/s	80	-	-	-	80
	Total	72	52	58	51	61
Undifferentiated n = 559	f/t	50	42	37	35	42
	p/t	55	49	41	56	50
	Total	54	48	40	52	49
TOTAL n = 501	f/t	57	50	46	42	49
TOTAL n = 891	p/t	50	48	45	51	48
TOTAL n = 97	u/s	72	-	-	-	72
GRAND TOTAL		57	48	45	48	50
n = 1489		n = 454	n = 407	n = 316	n = 312	n= 1489

n = number of students in each sample section

Number of respondent institutions = 7

Australian National University
Macquarie University (did not differentiate results by faculty)
Murdoch University
University of Melbourne (includes TOP students)
University of New England
University of New South Wales
University of Wollongong

Table 8.14

SUCCESS OF STUDENTS WHO ENROLLED IN UG1 COURSES AT OTHER COLLEGES OF ADVANCED EDUCATION ON THE BASIS OF TAFE CERTIFICATE COURSES (PERCENTAGE OF TOTAL RESULTS REPORTED)

YEAR		1980	1981	1982	1983	TOTAL
DISCIPLINE		STUDENT SUCCESS %				
Science n = 5	f/t	-	-	60	-	60
	p/t	-	-	-	-	-
	Total	-	-	-	-	60
Business Studies n = 85	f/t	100	0	0	47	43
	p/t	33	31	35	41	37
	Total	60	29	30	43	39
Art and Design n = 29	f/t	-	-	55	-	55
	p/t	-	-	-	-	-
	Total	-	-	55	-	55
Others n = 24	f/t	-	-	100	56	58
	p/t	100	-	100	100	100
	Total	100	-	100	62	63
TOTAL n = 76 / n = 67	f/t	100	0	53	51	53
	p/t	25	31	44	47	42
GRAND TOTAL		67	29	48	49	48
n = 143		n = 6	n = 14	n = 56	n = 67	n = 143

n = number of students in each sample section

Number of respondent institutions = 3

Brisbane College of Advanced Education
Hawkesbury Agricultural College
Victoria College

Table 8.15

SUCCESS OF STUDENTS WHO ENROLLED IN UG2 COURSES AT OTHER COLLEGES OF ADVANCED EDUCATION ON THE BASIS OF TAFE CERTIFICATE COURSES (PERCENTAGE OF TOTAL RESULTS REPORTED)

YEAR		1980	1981	1982	1983	TOTAL
DISCIPLINE		STUDENT SUCCESS %				
Science n = 9	f/t	-	-	-	-	-
	p/t	-	-	67	-	67
	Total	-	-	67	-	67
Business Studies n = 71	f/t	-	-	50	67	63
	p/t	-	-	83	40	56
	Total	-	-	80	44	56
Art and Design n = 46	f/t	-	-	88	74	77
	p/t	-	-	40	50	45
	Total	-	-	69	70	70
Others n = 25	f/t	0	92	86	87	89
	p/t	32	24	58	64	39
	Total	30	73	78	85	73
TOTAL n = 222	f/t	0	92	84	84	85
n = 158	p/t	32	24	69	46	47
GRAND TOTAL		30	73	75	73	69
n = 380		n = 33	n = 74	n = 80	n = 193	n = 380

n = number of students in each sample section

Number of respondent institutions = 5

Brisbane College of Advanced Education
Hawkesbury Agricultural College
Queensland College of Art
South Australian College of Advanced Education
Victoria College

Table 8.16

SUCCESS OF STUDENTS WHO ENROLLED IN UG3 COURSES AT OTHER COLLEGES OF ADVANCED EDUCATION ON THE BASIS OF TAFE CERTIFICATE COURSES (PERCENTAGE OF TOTAL RESULTS RECORDED)

YEAR		1980	1981	1982	1983	TOTAL
DISCIPLINE		STUDENT SUCCESS %				
Science n = 6	f/t	-	-	-	75	75
	p/t	-	-	100	-	100
	Total	-	-	100	75	83
Business Studies n = 7	f/t	-	-	100	-	100
	p/t	-	50	67	0	50
	Total	-	50	75	0	57
Art and Design n = 40	f/t	50	75	40	50	53
	p/t	100	100	44	70	68
	Total	78	80	43	67	63
Others n = 87	f/t	-	0	100	100	82
	p/t	40	70	41	59	53
	Total	40	58	47	66	56
TOTAL n = 31	f/t	50	50	67	83	68
n = 109	p/t	70	69	43	60	57
GRAND TOTAL		64	63	50	65	59
n = 140		n = 14	n = 19	n = 52	n = 55	n = 140

n = number of students in each sample section

Number of respondent institutions = 4

Brisbane College of Advanced Education
Hawkesbury Agricultural College
South Australian College of Advanced Education
Victoria College

CHAPTER 9

THE ACCEPTANCE OF TAFE MIDDLE-LEVEL COURSES FOR STATUS WHEN STUDENTS HAVE MATRICULATED IN THE TRADITIONAL WAY— THE AUSTRALIAN POSITION TODAY

For the purposes of this discussion, entrance to courses on bases other than a TAFE middle-level course is to be considered traditional. Very few examples of status for TAFE middle-level Certificates to students who had matriculated in the traditional way, were identified.

9.1 POLICIES ON THE GRANTING OF STATUS TO STUDENTS WHO HAVE MATRICULATED IN THE TRADITIONAL WAY

9.1.1 The universities

Very few universities in Australia are prepared to grant advanced status for TAFE Certificate qualifications even when the student has matriculated in the traditional way.

New South Wales

The University of New England will not grant credit for TAFE courses but may sometimes be prepared to grant a small amount of exemption for courses within the Faculty of Economic Studies. In this context exemption means that students may avoid a particular compulsory course where it bears similarity to a course previously studied successfully, but must substitute another course for that from which they are exempted.

Macquarie University will not grant any advanced standing or credit for TAFE Certificate qualifications.

Victoria

La Trobe University has no fixed policy. The decision in each case would depend upon content of the course completed and the proposed course of the student. In essence, each case would be considered on its merits.

Queensland

James Cook University grants status in the Bachelor of Commerce course to mature age students who have completed three specific subjects (viz. Accounting 1, 11, VA) in the Commerce Certificate course. The status is 90 credit points out of a full year requirement of 360 (Coral Butcher, Townsville College of TAFE, pers. comm., 1984).

Griffith University gives no credit for a TAFE certificate.

South Australia

Neither Flinders University nor the University of Adelaide will give status in degree courses on the basis of certificate work, even if the applicant is qualified to matriculate.

Australian Capital Territory

The ANU does not give status or credit towards its degree courses for courses completed at the TAFE level.

9.1.2 The major city institutes of technology

Currently at the South Australian Institute of Technology there is one specific case where the granting of advanced status for a TAFE Certificate is contingent upon traditional matriculation or the equivalent. Students who have completed successfully the Electrical Technicians Certificate, will be given advanced status to the full extent of their certificate course in the Bachelor of Engineering in Electrical Engineering provided that they hold matriculation level mathematics, physics and chemistry.

9.1.3 The other colleges of advanced education

New South Wales

Hawkesbury Agricultural College may give some standing in individual subjects to UG1 and UG2 students in business studies courses who have undertaken relevant TAFE middle-level courses, and who have qualified for entrance in the normal way.

Newcastle College of Advanced Education has a policy on granting status in the Diploma of Teaching (Industrial Arts) to students who have been granted matriculation separately from completing a specific trade course together with an apprenticeship. Those who hold an HSC certificate are granted 27 credit points out of a total of 38 in the first year of the course. Those who have not achieved an acceptable aggregate in the New South Wales Higher School certificate, but who qualify for mature age matriculation, may be granted nine credit points out of the yearly total of 38 for the completion of a specified trade certificate.

Advanced standing is granted also in one module of the Associate Diploma in Computing to matriculated or mature age students who have completed the NSW TAFE Accounting Certificate. Such status is generally in the order of 27 to 30 credit points or approximately one year of a three year course.

Queensland

The Queensland College of Art grants students who have completed a relevant TAFE middle-level course, exemption from 80% of year one of the UG2 course. No students have been enrolled on this basis.

South Australia

Roseworthy Agricultural College has no general policy on the granting of status for previous study in TAFE. Each application is considered on its individual merits. It may be that status would not be granted for a complete subject or part of a year, but that exemption from some part of the curriculum might be allowed.

Australian Capital Territory

The general policy of the Canberra CAE is that no status is given for TAFE studies.

The Canberra School of Art has no policy.

9.1.4 Classification of status policies

Classification of status policies is shown in Table 9.1.

Table 9.1

CLASSIFICATION OF STATUS POLICIES OF HIGHER EDUCATION INSTITUTIONS WITH REGARD TO TAFE MIDDLE-LEVEL (CERTIFICATE) COURSES WHEN STUDENTS HAVE MATRICULATED IN THE TRADITIONAL WAY

POLICY	LIMITED (OR PROVISIONAL) STATUS	NO STATUS	NO POLICY
NATURE OF INSTITUTION			
Universities	James Cook	Adelaide ANU Flinders Griffith Macquarie Monash New England	La Trobe
Major city institutes of technology	SAIT		
Other colleges of advanced	Hawkesbury Newcastle Queensland Arts Roseworthy	Canberra	Canberra Arts

CHAPTER 10

STATUS FOR STUDENTS ADMITTED TO HIGHER EDUCATION ON THE BASIS OF TAFE MIDDLE-LEVEL CERTIFICATES — THE AUSTRALIAN POSITION TODAY

Harman (1978) said that there has never been in Australia a strong tradition of student transfer with full status. Whether this is still true is examined in the light of information provided by the institutions themselves.

10.1 POLICIES ON THE GRANTING OF STATUS TO STUDENTS WHO HAVE BEEN GRANTED ADMISSION ON THE BASIS OF TAFE MIDDLE-LEVEL CERTIFICATES

10.1.1 The universities

New South Wales

The University of Wollongong offers advanced standing to students who have completed successfully a TAFE certificate course.

A bachelor degree at the University of Wollongong requires a total of 144 credit points attained over a period of three years (i.e. 48 credit points per year).

A two year TAFE certificate receives 24 credit points (i.e. one half year standing); a three year TAFE certificate receives 36 credit points (i.e. three quarters of a year standing).

In general, entrance to TAFE certificate courses in New South Wales is at school certificate level (year 10) (NSWDTAFE, 1984). Therefore a two year certificate is seen by the University of Wollongong as the matriculation year plus half a year higher education study. The third year is seen as an additional quarter of a year of higher education study.

The University of Newcastle may award advanced status to holders of a relevant TAFE certificate. The amount of status granted depends upon the course.

In mechanical engineering, holders of the TAFE Mechanical Engineering Certificate (two and a half years full-time post year 10) are exempt usually from the first year of a four year degree.

In metallurgy, holders of the TAFE Metallurgy Certificate (two years equivalent full-time post year 10) can gain the equivalent of a half a full-time year in exemptions, while, in electrical engineering, exemptions from one or two subjects can be obtained.

There are no exemptions in commerce for TAFE Accounting Certificate holders. Neilson (pers. comm., 1984) stated that there is usually no problem in filling commerce places at the University of Newcastle but that it was not known if this fact had had any effect on exemption policy.

The University of New South Wales gives some exemptions to certificate holders from the practical components of some subjects. It considers the grade of pass of each applicant when determining these.

Macquarie University will not grant any advanced standing or status for any TAFE Certificate used for the purpose of entry.

Victoria

La Trobe University does not have any fixed policy on status for TAFE middle-level courses. The decision made on any case would depend upon the content of the course completed and course proposed to be undertaken by the student.

Queensland

Griffith University grants no status towards a degree for a TAFE Certificate.

South Australia

Neither the University of Adelaide nor Flinders University will grant status to students on the basis of TAFE middle-level Certificate courses. The University of Adelaide specifies that this is because of the 'vocational nature' of the TAFE courses.

Western Australia

It is possible for students at Murdoch University to be granted status for some or all individual subjects on the basis of TAFE work.

Tasmania

The University of Tasmania offers advanced standing in the Bachelor of Science degree to students who have completed the Certificate in Chemical Technology. The status applies to parts of each of the three years of the course. As at 1984, no students had been granted this status.

Australian Capital Territory

The ANU does not give status towards its degree courses for courses completed at TAFE level.

10.1.2 The major city institutes of technology

New South Wales

The New South Wales Institute of Technology grants exemptions of up to one semester to holders of certain engineering and business certificates in appropriate courses (Neilson, pers. comm., 1984), viz. applied science, building, biological sciences, civil engineering, electrical engineering and mechanical engineering.

Queensland

The Queensland Institute of Technology grants limited credit in UG1 and UG2 courses in science and engineering. The credit either relates to the practical components of the UG1 and UG2 courses or is given in subjects for which amalgamation of certificate subjects is equivalent.

Exemptions are not usually granted in business studies.

In the area of building and quantity surveying, students may be admitted to the UG1 course on the basis of the five year post-trade building course and receive the equivalent of 18 months to two years part-time study exemptions.

As indicated in Section 8.1.2, the Queensland Division of TAFE conducts an engineering bridging course for the (UG3) associate diploma. The course does not provide a qualification in itself, but it does provide a qualification for entry to the corresponding UG3 course at QIT and for status which could amount to approximately one year's exemption from the four-year part-time UG3 course (Department of Education, Queensland, 1984).

Other TAFE certificate holders receive exemptions from subjects in UG3 engineering courses (mainly practical) on a selected subject basis.

No credit is given for TAFE middle-level Certificate courses in the Built Environment Faculty, but exemptions may be granted in applied science at the discretion of the head of department.

South Australia

In 1970, Lee et al. reported on the number of students over the period 1957 to 1966 who had been granted status in B.Tech courses at the South Australian Institute of Technology from other tertiary establishments. Over that time 21.1% of the full-time students and 15.5% of the part-time students had transferred with status from other tertiary establishments. There was no indication of the nature of tertiary institutions from which the students came.

Currently SAIT grants both entry to and status in a number of courses to students who have completed relevant TAFE middle-level Certificates. The amount of status given varies with the discipline. In general, full status for relevant TAFE Certificate courses is given in UG3 courses in building,

computing studies and electrical engineering, while limited status is given in UG3 courses in surveying, business and mechanical engineering and degree courses in library studies, mechanical engineering and applied science (Skull, 1982).

Western Australia

As indicated in Section 7.4, in Western Australia the Western Australian Post Secondary Education Committee (WAPSEC) has set up a credit transfer group which reports to the Accreditation Committee. This group is examining problems associated with credit transfer.

With regard to WAIT in particular, although there is no formal documentation, by and large it will give advanced standing in a course to holders of a Technical Education Diploma (the nomenclature adopted for a TAFE middle-level course in Western Australia).

It has been reported that the degree of status being given does not take account of the special nature of TAFE qualifications. The larger proportion of TAFE students are part-time and they are gaining knowledge not only in their studies but as a result of their work experience. The TAFE Authorities suggest that in making assessment of TAFE qualifications for credit, the emphasis is too much on the academic element of the studies and too little on knowledge gained through experience. It is in this context that arguments for a competency model of credit transfer might be particularly relevant (Section 5.1.3(b)).

One particular course, where concern has been expressed, is the degree in Local Government which has been introduced by WAIT. The degree requires 600 credit points of which 120 are granted for a Technical Education Diploma. The contention of TAFE in Western Australia is that 400 credit points would be more realistic.

10.1.3 The other colleges of advanced education

New South Wales

Riverina College of Advanced Education operates a TAFE conversion course in their Bachelor of Business (Administration) course. Holders of the TAFE Management Certificate gain provisional exemption in seven subjects in the business specialisation section of the course and are required then to complete an additional 17 subjects.

Riverina gives exemptions also in 12 units out of the 90 in their science program to holders of the TAFE Pathology Technician Certificate (two year equivalent full-time post year 11) (Neilson, pers. comm., 1984).

Hawkesbury Agricultural College may give advanced standing in some individual subjects in UG1 and UG2 courses in business studies for TAFE middle-level courses to students who have used that course for a qualification for admission.

Newcastle College of Advanced Education allows status in some special cases for TAFE qualifications which have been used also for admission. Holders of NSW TAFE Art Certificate may be given some informal accelerated progression in the studio component of the B.A. (Visual Arts) while holders of either the NSW TAFE Associate Diploma or Certificate in Welfare Work, if they have completed specific modules, will be granted advanced standing in the Associate Diploma in Social Welfare.

Victoria

The Victoria College grants limited status to holders of relevant TAFE middle-level Certificates in UG1 courses in business studies and rehabilitation studies and in UG3 courses in business studies.

The School of Engineering at Footscray Institute of Technology will grant to students whose results in a relevant TAFE middle-level Certificate course are better than average, exemptions in certain first year subjects (Bernard Daniels, pers. comm., 1984).

Melbourne College of Advanced Education grants no credit to holders of TAFE middle-level Certificates.

Phillip Institute of Technology does not have an overall policy on granting advanced standing to applicants who have completed successfully a TAFE middle-level course. Each school has its own criteria. In some cases, depending upon the number of accounting subjects which have been taken with a certificate course, some exemptions may be granted in courses in the School of Business.

Queensland

Higher education courses are provided in Queensland both by colleges of advanced education and in rural areas by the Division of TAFE of the Education Department.

The Brisbane College of Advanced Education requires that courses for which status is sought must be equivalent to Brisbane CAE courses both in level and content before full status is granted. Most TAFE qualifications would not enable a student to receive full status. However, partial status may be awarded in certain cases, if curcumstances warranted.

The engineering bridging course mentioned in Section 10.1.2 provides qualification for entry and for status in the UG3 engineering courses conducted at Townsville College of TAFE. Darling Downs Institute of Advanced Education grants entrance, but not status, to students who complete the bridging course. However, 'restricted enrolment' students at Darling Downs Institute of Advanced Education are granted full credit in the normal course for those subjects passed as 'restricted enrolments'.

Queensland College of Art grants exemption from 80% of year 1 of a UG2 course to students who have completed a relevant TAFE certificate course.

South Australia

The South Australian College of Advanced Education (SACAE) grants entry to and full status for relevant TAFE Certificate courses in the UG3 course in commercial art and UG1 courses in accounting, banking, and finance, secretarial studies, performing arts and design.

The SACAE gives part credit for relevant TAFE courses in the UG1 courses in fine art and communications.

The SACAE is also prepared to grant status in business studies courses via the challenge system (the competency model of articulation). Students who have had considerable work and/or study experience prior to their initial enrolment may be permitted to seek status in particular course units.

Students permitted to challenge a unit are required to submit to an external examination in the unit in the year prior to when they normally would have studied it (SACAE, 1984).

Western Australia

The Western Australian College of Advanced Education (WACAE) has a well-defined set of TAFE courses and subjects which in many cases will gain exemptions in higher education courses. This is particularly true in the School of Business Studies where a number of TAFE courses in areas such as accounting, business administration, banking and finance, public administration, personnel management and computer programming lead to exemptions within the Bachelor of Business degree course.

The status model of articulation is used at WACAE. For students who have completed appropriate WA TAFE diplomas (the equivalent of certificates in other States), there is a published list of subjects from which they will be exempted (Western Australian College, 1983).

Tasmania

Tasmanian College of Advanced Education grants status in relevant courses at all levels to holders of TAFE Certificates in Building and Architecture, Business Studies and Chemical Technology. Development so far is in the embryo stage and the statistics are small. In every case status is limited, although there has been an exceptional case in building and architecture where five-sixths of the total course was granted.

Credit by way of exemption from a full year unit in the Bachelor of Business (Accounting) is given for a Certificate of Business Studies.

Australian Capital Territory

The general policy of the Canberra College of Advanced Education is that no credit is given for TAFE studies.

The Canberra School of Art has no policy.

10.1.4 Other institutions

Victoria

Marcus Oldham Farm Management College reports that there is no fixed policy on status for students who have completed a TAFE middle-level Certificate course over the years.

There are two aspects to be considered:

- the breadth and depth of the previous tuition in agriculture and farm management which the student has received;
- the practical experience of the student.

10.1.5 Classification of status policies of higher education institutions with regard to TAFE middle-level certificate courses when students use such for admission purposes

This is shown in Table 10.1

Table 10.1

CLASSIFICATION OF STATUS POLICIES OF HIGHER EDUCATION INSTITUTIONS WITH REGARD TO TAFE MIDDLE-LEVEL CERTIFICATE COURSES WHEN STUDENTS USE SUCH COURSES FOR ADMISSION PURPOSES

POLICY	LIMITED (OR PROVISIONAL) STATUS	NO STATUS	NO POLICY
NATURE OF INSTITUTION			
Universities	Murdoch Newcastle New South Wales Tasmania Wollongong	Adelaide ANU Flinders Griffith Macquarie Monash New England	La Trobe
Major city institutes of technology	NSWIT QIT SAIT		
Other colleges of advanced education	Footscray Hawkesbury Newcastle Phillip Queensland Arts Riverina South Australia Tasmania Victoria Western Australia	Brisbane Canberra Darwin Melbourne	Canberra Art

10.2 STUDENTS WHO HAVE BEEN GRANTED ADMISSION ON THE BASIS OF A TAFE MIDDLE-LEVEL CERTIFICATE AND WHO HAVE BEEN GRANTED STATUS ON THE BASIS OF THAT CERTIFICATE

There is virtually no statistical information available on the number of TAFE middle-level Certificate holders who have been granted status in higher education courses. Only three institutions, viz. University of Wollongong, Queensland Institute of Technology and Victoria College, provided any information. This is shown in Tables 10.2 and 10.3.

This information shows that just on half the students admitted to the University of Wollongong on the basis of TAFE qualifications have been granted status in their university courses. In the case of the two advanced education institutions, the proportion is about 25%.

Table 10.2

NUMBER OF STUDENTS WHO HAVE BEEN GRANTED STATUS IN BACHELOR COURSES ON THE BASIS OF A TAFE MIDDLE-LEVEL CERTIFICATE AT THE UNIVERSITY OF WOLLONGONG BY DISCIPLINE AND MODE OF ATTENDANCE FOR THE YEARS 1980-1983

YEAR		1980	1981	1982	1983	TOTAL
DISCIPLINE						
Science	f/t	-	1	-	-	1
	p/t	3	7	3	-	13
	Total	3	7	3	-	14
Engineering	f/t	-	-	-	-	-
	p/t	1	-	-	-	1
	Total	1	-	-	-	1
Business Studies	f/t	-	1	1	1	3
	p/t	1	3	1	2	7
	Total	1	4	2	3	10
Others	f/t	-	-	1	-	1
	p/t	1	3	2	2	8
	Total	1	3	3	2	9
GRAND TOTAL		6	14	8	5	34

Table 10.3

NUMBER OF STUDENTS WHO HAVE BEEN GRANTED STATUS ON THE BASIS OF A TAFE MIDDLE-LEVEL CERTIFICATE AT SPECIFIED ADVANCED EDUCATION INSTITUTIONS BY DISCIPLINE, LEVEL OF COURSE, MODE OF ATTENDANCE, FOR THE YEARS 1982-1984

YEAR		1982			1983			1984			TOTAL		
DISCIPLINE	LEVEL	UG1	UG2	UG3	UG1	UG2	UG3	UG1	UG2	UG3	UG1	UG2	UG3
Science	f/t							1			1		
	p/t				1						1		
	Total				1			1			2		
Engineering	f/t							1			1		
	p/t				6		21	7		26	13		47
	Total				6		21	8		26	14		47
Business Studies	f/t				1			4			5		
	p/t	1			1			9			11		
	Total	1			2			13			16		
Others	f/t												
	p/t				3			6			9		
	Total				3			6			9		
TOTAL	f/t				1			6			7		
	p/t	1			11		21	22		26	34		47
	Total	1			12		21	28		26	41		47

Number of respondent institutions = 2

Queensland Institute of Technology
Victoria College

10.3 SUCCESS OF STUDENTS WHO HAVE BEEN GRANTED STATUS AS WELL AS ADMISSION ON THE BASIS OF A TAFE MIDDLE-LEVEL CERTIFICATE

Willingham (1972) reported that in the United States, it was acknowledged widely and documented that community college students suffered a drop in grades after transfer. Some writiers have referred to this drop as 'transfer shock' and have speculated about possible causes.

This 'transfer shock' is illustrated in a study conducted by Anderson (1977) where he compared the success in the junior year (third year of a four year baccalaureate course) for three groups of students, namely:

- transfer from two year community colleges
- transfer or readmitted students from a four year college or university
- continuing students.

The academic performance of each group over each semester of the next two years is shown in Figure 10.1.

All groups began their junior year with fairly similar grade point averages. The continuing students maintained theirs, the transfers from four year colleges or universities fell slightly, while the community college group dropped clearly.

One possible cause of the drop in grades was the shock of entering a new, somewhat different academic environment. Evidence for this effect lay in the fact that grades of transfer students typically improve after the first term in the senior institution (as illustrated by Anderson (1977); Figure 10.1).

According to Willingham most of the research on student performance left little doubt that most community college students transferring to a four year institution did a creditable job after transfer.

This is particularly creditable for, as Anderson (1977) pointed out, these students generally entered college with lower high school achievement and lower scores on standardised entrance examinations.

However, Knoell and Medsker (1965) maintained that there were many who would never achieve satisfactory grades. They attributed much of this to the wide differences among institutions regarding the academic demands placed upon the students and concluded that senior institutions must pay closer attention to whether a student applicant was likely to succeed so that he might be counselled appropriately. A common method is to supplement available information with an appropriate admission or college level test. Such a procedure has been suggested for the University of Adelaide (Section 8.3.3) while the posssibility of motivation tests has been canvassed in Section 8.3.6.

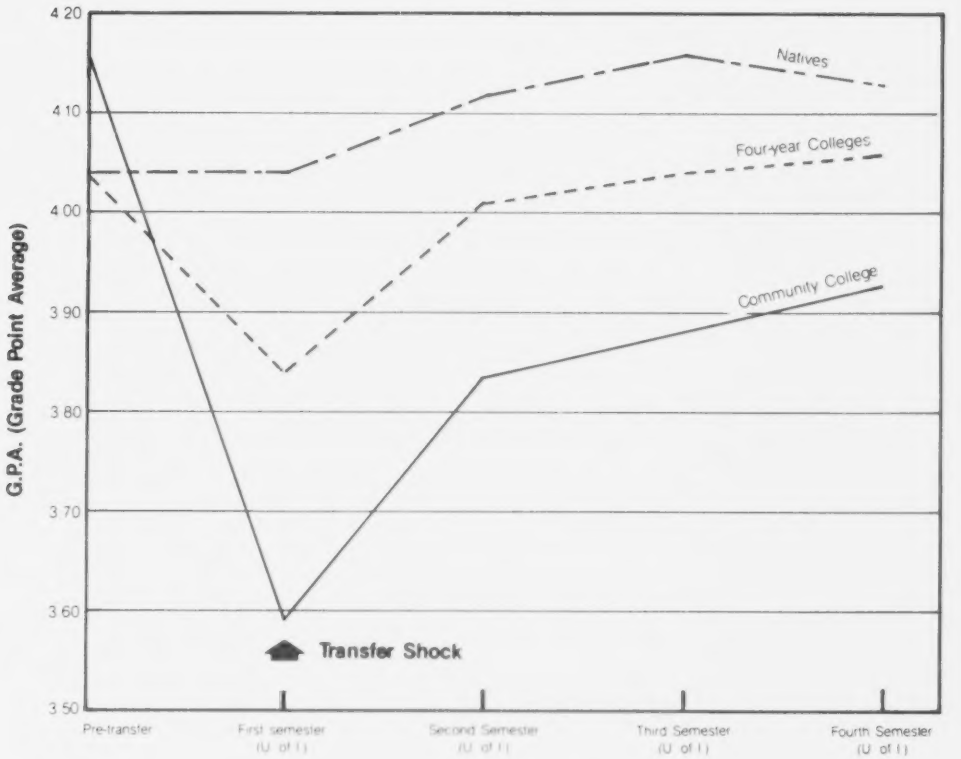

Fig.10.1. Transfer and native student grade point average by semester.

10.3.1 Statistical information

There is virtually no information available on the success of students who have been granted admission and status on the basis of a TAFE middle-level Certificate. Only the University of Wollongong, Queensland Institute of Technology and Victoria College provided any information. This is shown in Table 10.4. Those who were included in the tiny sample (n = 41) were quite successful.

Table 10.4

SUCCESS OF STUDENTS WHO HAD BEEN GRANTED STATUS ON THE BASIS OF A TAFE MIDDLE-LEVEL CERTIFICATE AT SPECIFIED INSTITUTIONS BY DISCIPLINE, LEVEL OF COURSE, MODE OF ATTENDANCE, FOR THE YEARS 1982-1983

YEAR		1982			1983			TOTAL		
DISCIPLINE	LEVEL	Degree	UG1	UG2	Degree	UG1	UG3	Degree	UG1	UG3
	f/t	-	-	-	-	-	-	-	-	-
Science	p/t	100	-	-	-	-	-	100	-	-
n = 2	Total	100	-	-	-	-	-	100	-	-
	f/t	-	-	-	-	-	-	-	-	-
Engineering	p/t	-	-	-	-	50	86		50	86
n = 27	Total	-	-	-	50	-	86	50	-	86
Business	f/t	100	-	-	-	0	-	100	0	-
Studies	p/t	100	0	-	100	100	-	100	50	-
n = 7	Total	100	0	-	67	50	-	80	33	71
	f/t	100	-	-	-	-	-	100	-	-
Others	p/t	100	-	-	100	-	-	100	-	-
n = 5	Total	100	-	-	100	-	-	100	-	-
TOTAL	f/t	100	-	-	-	-	-	100	0	-
	p/t	100	0	-	100	57	86	100	50	86
GRAND TOTAL		100	0	-	80	57	86	100	56	86
n = 41			n = 8			n = 33			n = 41	

CHAPTER 11

CONCLUSIONS AND RECOMMENDATIONS

11.1 INTRODUCTION

Ideally the best interests of both students and institutions in Australia would be satisfied if students completed their courses in the minimum time consistent with the attainment and maintenance of appropriate standards and without having to repeat academic work undertaken already. It has been suggested that, in the case of holders of TAFE middle-level Certificates, there is a pool of students who, if admitted to and granted status in related higher education courses for the work completed in their previous courses, would have a more than reasonable chance of success.

Menacker (1975) would suggest that those responsible for granting credit in higher education courses should ask themselves how they could best grant admission and status in order to help the student to move towards graduation.

In other words, in the terms of this study, how can the articulation between relevant TAFE middle-level Certificate courses and higher education courses be improved to the mutual satisfaction of all concerned.

Barrett and Powell (1980) put it as follows:

> If universities and colleges are genuinely concerned to widen access they should be negotiating with the technical and further education sectors to provide adequate bridging courses designed specifically with the needs of the MAU [mature age unmatriculated] student in mind. These will need to be based on the level of competence of individual students. . . (p. 23).

Using this ideal as a base, the Australian situation has been examined. Judgments are made of the extent to which Australia matches the ideal and recommendations developed accordingly.

11.2 THE ACCEPTABILITY OF TAFE MIDDLE-LEVEL CERTIFICATES FOR ENTRY TO HIGHER EDUCATION

Anders (1977) said that an exit credential from one post-secondary institution is rarely, if ever, acceptable as an admission credential to a different type of institution and suggested that it was doubtful whether transfer situations would develop to any large degree in the Australian situation.

Kelleher (1979) showed that in agricultural education the opportunities for transfer between types of institution was rather limited. In fact he found no accepted transfer provisions except in New South Wales.

Although the view of Kelleher may be justifiable within the relatively narrow terms of reference of his study, it is doubtful whether the view of Anders will stand examination.

The numbers of students who have given their highest education level as a TAFE qualification, and who have entered higher education institutions over the years 1980-1983 is shown in Table 11.1.

Table 11.1

TOTAL NUMBERS OF STUDENTS WITH A TAFE QUALIFICATION ENTERING HIGHER EDUCATION INSTITUTIONS 1980-1983 BY TYPE OF INSTITUTION

YEAR	1980	1981	1982	1983	TOTAL
TYPE OF INSTITUTION					
Universities	1017	1051	962	1048	4078
Major city institutes of technology	820	675	686	488	2669
Other colleges of advanced education	1987	2092	2466	2214	8759
TOTAL	3824	3818	4114	3750	15506

Figures derived from Appendix G, Table 2; Appendix H, Table 3; and Appendix I, Table 2.

Over the years 1980-1983 more than 15 000 students who held technical college qualifications as their highest qualification have been admitted to institutions of higher education. It is not true of the Australian education scene that an exit credential from one institution is rarely, if ever, acceptable as an admission credential to a different type of institution.

There are however, two strong reservations.

(a) There are a number of higher education institutions which do not as yet accept TAFE middle-level Certificates as a qualification for entrance.

Table 8.1 classifies the higher education institutions which responded to the surey on the basis of their policies towards TAFE middle-level Certificates as a qualification

for entry. Of the 43 institutions included in the table, seven (three of which were universities) had a policy of not accepting TAFE middle-level Certificates as a qualification for entry. A relaxing of policy by these institutions would increase the number of opportunities available to TAFE exit students. A recommendation on this issue is made below.

(b) The actual number of applicants may far exceed the number of places offered.

It has proved very difficult to obtain any figures on this question and conclusions drawn from the limited information available must be treated with some caution.

From the statistical information recorded in Sections 8.2.4 and 8.3.6, a little under half of those who apply for admission on the basis of TAFE middle-level Certificates are offered places. That is, it may be concluded that there is a potential pool of some 8000 students who might seek to enter institutions of higher education each year on the basis of TAFE middle-level Certificates, if places were available.

11.3 THE SELECTION OF HOLDERS OF TAFE MIDDLE-LEVEL CERTIFICATES IN COMPETITION WITH OTHERS

In making this selection the higher education institutions are being required to make comparisons between the virtually incomparable.

The systems used in Australia, where they can be identified, are generally arbitrary and mechanistic. They range from selection with a sub-quota to a predetermined conversion factor by which TAFE certificate applicants can be slotted in with others. In fact, except for mature-age entry schemes, the situation has changed very little in 25 years, for Sanders (1958) said that selection for entrance to universities in Australia was based entirely on examinations and that, in most faculties, supplementary tests were used only to a limited degree. Anderson (1966) would justify this on the grounds of the limited validity of such things as interview assessment, personality tests, ability tests and secondary school ratings.

Fischer (1982) who saw essay marking and interviewing as time consuming and probably of questionable value as a selection device, would probably agree. He suggested the use of a standard aptitude test to select the top (say) 60% before an essay and interview.

Gibb (1979) said that the work which had been done on these selection techniques suggested that their value might rest in their indirect assessment of motivation rather than in their inherent validity as specific selection devices. Based on the work of Slamowicz et al. (1976) who conducted an annual audit of new students at Monash University by means of a questionnaire handed out at enrolment, Gibb considered also that valid use might be made of carefully prepared application forms.

Gibb referred to the body of researh being conducted at the University of New South Wales by Barrett (1976) and others, the implication of which he saw as being that selection could be made more efficiently if more attention were given to measures on assessments of motivation and even of personality characteristics.

This work and work being done in the United Kingdom (Section 8.3.7) suggests that employment motivation tests might be used with profit in order to assist in choosing between those with the basic qualifications for admission. It is RECOMMENDED that the CTEC consider, together with its constituent councils, the provision of a grant to investigate the development of such tests.

Another factor which should be taken into account is the opinion of the sending institutions on the quality of the students, even though, where there is competition between students from different educational backgrounds, the views of the sending institutions could hardly be the final word.

Nevertheless, it should be noted that experiments in the United Kingdom have shown that the predictive value of assessments based on success at school is greater than some people suppose (Choppin et al., 1973).

Therefore the recommendations of sending institutions should be taken into account by higher education institutions in making selections of applicants to fill quotas.

The development of mutually acceptable procedures will take careful negotiation. It is RECOMMENDED that the Conference of Directors of TAFE should consider the sponsorship in association with the CTEC and the Australian Vice-Chancellors' Committee of a seminar of representatives from the secondary and all three of the tertiary sectors in order to consider means by which the recommendations of the secondary school and TAFE institutions might be taken into account in selection for higher education.

11.4 THE ACCEPTABILITY OF TAFE MIDDLE-LEVEL CERTIFICATES FOR STATUS IN HIGHER EDUCATION COURSES

Tables 9.1 and 10.1 classify the status policies of higher education institutions with regard to TAFE middle-level Certificates when students have matriculated in the traditional way, and, when they have been admitted on the basis of their TAFE middle-level Certificates respectively

The outcomes of the survey have shown that higher education institutions did not always recognise the distinction (as made in this paper) between the two form of status and some judgment was necessary in interpreting their replies.

In Table 9.1, of the 15 higher education institutions for which a policy could be identified, six (one a university, one a mjor city institute of technology) were prepared to grant limited (or

provisional) status to students who held a TAFE middle-level Certificate, and, who had matriculated in the traditional way.

In Table 10.1, of the 31 higher education institutions for which a policy could be identified, 18 were prepared to grant limited (or provisional) status to students who had been granted amdission on the basis of a TAFE middle-level Certificate. Of the 18 institutions which were prepared to grant status, five were universities.

Overall many higher education institutions grant status to holders of TAFE middle-level Certificates. It is not possible to determine the actual number of students who receive status, but some estimate can be attempted. Just over one per cent of the total admissions to Queensland Institute of Technology and the Victoria College were granted status in 1983 on the basis of a successfully completed TAFE middle-level Certificate. Extending this percentage to the 18 higher education institutions which have been identified as being prepared to grant status, an estimate of 300 students is obtained. It would seem that even though many higher education institutions are prepared to grant status to holders of TAFE middle-level Certificates, the number of students who are actually granted status is quite small, perhaps as a result of the method by which status is usually granted.

The most common method in Australia is the second variation of the status model of articulation (Section 5.1.2), a model which many would consider often reflects extreme arbitrariness.

The principal requirement of any articulation model used is that it should be flexible enough to be applied equitably to the majority of cases. It is suggested that the continuum, status and qualifying requirements models are too rigid for application to a wide range of possibilities, while the bridging model is limited to specific circumstances.

It is suggested further that an equitable and flexible approach to status would require three steps:

(a) The development of curriculum co-operation between the sections of the tertiary sector in order to ensure that the purposes of courses are stated clearly and that their content is based upon recognisable vocational needs (Mathers, 1981).

    Mathers saw this as following from:

    - improved communication between institutions;
    - participation of other sectors in course planning and development;
    - participation of other sectors in course review, rationalisation, assessment and accreditation;
    - membership of other sectors on institutional councils and standing curriculum committees;
    - shared teaching of courses and subjects (Section 5.2).

It is RECOMMENDED that the Conference of Directors of TAFE invite its members to seek to develop the above procedures, firstly by introducing them into the TAFE curriculum process.

(b) The introduction of a credit point model (Section 5.1.2(c)) would provide a more satisfactory approach and it is RECOMMENDED, as a first step, that the Conference of Directors of TAFE initiate steps to organise TAFE middle-level Certificate courses on a credit point system.

(c) Although going a long way towards overcoming many difficulties, a credit-point system alone would not be sufficient. The competency model (Section 5.1.3(b)) offers opportunity for non-credentialled students to demonstrate their proficiency.

A common method of implementing the competency model is by means of challenge tests. In order that such challenge tests can be tried in practice, it is RECOMMENDED that the CTEC recommend to the Commonwealth Government an allocation of $100 000 for commissioning the development of a bank of test items. As some preliminary work has been done already in business studies (Section 10.1.3), it is RECOMMENDED that this discipline be used as a pilot.

11.5 THE SUCCESS OF STUDENTS WITH A TAFE MIDDLE-LEVEL CERTIFICATE BACKGROUND IN HIGHER EDUCATION COURSES

No conclusions can be drawn from the information obtained in this study on the success of students with TAFE middle-level Certificate backgrounds who have been admitted either with or without status to courses in higher education institutions compared with students admitted in the traditional way. What can be said, from the limited information available, is that such students seem to be reasonably successful, and, that many institutions are admitting such students and giving them status. If the performances of these students were demonstrably poorer than those of their contemporaries with traditional entrance qualifications, then it would be expected that the institutions themselves would be tending to tighten their admission policies. In fact in discussing the performance of mature-age unmatriculated students at the University of New South Wales, Barrett and Powell (1980b) said that:

> . . . more liberal admission policies are unlikely to pose any threat to academic standards (p. 366).

Nevertheless, at best, the general question of the relative success of TAFE exit students vis-a-vis traditional students is unresolved, but the information available suggests that further investigation is justified.

Three types of investigation are RECOMMENDED:

(a) the admission of additional students to higher education institutions, which have not as a matter of policy admitted

students on the basis of a TAFE middle-level qualification, to courses relevant to their TAFE qualification and the monitoring of their progress by comparison with the progress of students who have matriculated in the normal way.

(b) the granting of status (in general one full year of the course) by higher education institutions which have, as a matter of policy, admitted students on the basis of a TAFE middle-level qualification but which have not generally granted status to that extent, and the monitoring of their progress by comparison with the progress of other students entering the second year of the course.

(c) the development of imaginative experiments in designing courses to bridge any gap between the terminal point of the TAFE middle-level course and the entrance point of a related higher education course.

Barrett and Powell (1980) saw that many mature-age students who would like to study sciences or professional courses, were prevented from doing so because they lacked the necessary subject prerequisites. Transfer courses conducted concurrently with or antecendent to higher education courses may be one solution to this problem.

It is further RECOMMENDED that the Commonwealth Tertiary Education Commission (CTEC) recommend to the Commonwealth Government that it allocate $750 000 per year over the three years 1986-1988 to fund programs of the above three types and invite tenders from suitable institutions of higher education to participate. Given an overall cost of $5000 per student* per year (including administrative and monitoring costs), 1500 students (i.e. 37.5% of the potential pool) would be able to benefit in the first year. The numbers in the subsequent years would be less, depending on student progress.

It is intended that such students would be over and above the quotas normally admitted by the institutions of higher education which participate.

The tender should specify at least:

- the number of students who it is intended should participate in the program by faculty;
- the monitoring and reporting procedures intended;
- in case of proposal (c), an outline and rationale for the curriculum to be followed.

*Figure determined from information provided by CTEC. A weighted average of the direct costs in science, engineering, economics and arts.

11.6 THE QUESTION OF ARTICULATION

Judging from the pressures for improved transfer between institutions in the United Kingdom and the United States and from the number of people in Australia who are seeking transfer from TAFE to higher education institutions (with or without status), even though such transfer is not the generally acknowledged method of entry to higher education, it is doubtful whether the articulation question between TAFE and higher education can or should be avoided for much longer in Australia.

Trivett (1976) put it thus:

> One reason is that articulation problems are identified as an educational consumer issue. However, far more important in the long run is the revolution in thinking implied by lifelong learning and the learning society. If we are gradually accepting the idea that contemporary society requires constant reeducation, and that the educational system should be further opened to adults who perceive the need to change and adapt, then further improvement in articulation will be required so that learners of all ages move in and out of educational institutions in a smooth, efficient process (p. 2).

Willingham (1972) commented as follows:

> It is apparent that the substance of articulation must cover a wide variety of problems to insure co-ordination in a multilevel system of higher education. It is also true that conditions are constantly changing and that communication is difficult even under ideal conditions. Consequently, effective articulation requires, to some extent, an institutionalization of the process; that is, clear, routine machinery in the form of committees, conferences, and periodic reports (p. 37).

In the Australian environment there is a long way to go before anything approaching formal articulation agreement between many higher education institutions and TAFE Authorities would appear to be possible.

For those who would be impatient in this matter, the warning of Robbins (1980) (Section 4.2.1) that to leave the questions related to credit transfer to the individual colleges was to condemn such credit transfer to lingering failure, is very persuasive. Such people would argue that governments should intervene and impose a system (or at least use the threat of imposition to encourage the institutions to act themselves) on the institutions.

Others would point to the work in the United States (Section 4.2.2) where many articulation agreements have been reached voluntarily, principally it can be assumed, because such agreements were seen to be in the best interests of the

institutions themselves. They would support the view of Beswick et al. (1983) who argued that transfers from middle-level to degree programs should be negotiated directly between the institutions at certain curricular points.

Leaving aside the consumer benefits (Trivett, 1976), the receiving institution which enters into an articulation agreement with a sending institution, may improve the efficiency of its course delivery by not repeating work already mastered by some students, while at the same time not prejudicing its own academic standards.

This latter approach may be slower than the imposition of controls, but arrangements entered into, voluntarily based on conviction of their usefulness, are much more likely to be successful than those which are imposed externally. Trivett (1976) cited Kintzer (1975) as saying that this potential for success lay in the probability that voluntary agreements are more likely to be observed in the spirit and that the spirit which lay behind an agreement is more critical to successful articulation for students than is the letter of the agreement.

The degree to which TAFE qualifications are accepted in Australia already by higher education institutions, suggests that an approach based on voluntary arrangements will be successful and that machinery such as that recommended by Willingham (1972) based on some form of articulation agreement (or agreed guidelines, if an agreement is seen as inimical to the autonomy of the higher education institution) can be developed.

According to Wattenbarger (1966) any guidelines need to address the four major activities which the Joint Committee on Junior and Senior Colleges of the Association of American Colleges (AAC), the American Association of Junior Colleges (AAJC) and the American Association of Collegiate Registrars and Admissions Officers (AACRAO) saw as essential to the articulation process. These are admission, curriculum, counselling and administrative activities.

The following guidelines of Kintzer are adapted and RECOMMENDED as benchmarks for consideration in Australia. They have been developed both from those prepared in 1966 in the United States by the Join Committee on Junior and Senior College chaired by Wattenbarger and from those recommended in 1965 by Knoell and Medsker.

(a) The admissions activity.

- Satisfactory completion of an approved middle-level TAFE Certificate should guarantee meeting the entrance requirements of relevant higher educaton courses (Section 11.2).

- The process by which TAFE Certificate admission applicants are compared with applicants with other entrance qualifications, when there is competition for a place in a quota, should be specified (Section 11.3).

(b) The curriculum activity.

- Steps should be taken to develop curriculum co-operation between the sectors in order to ensure that the purposes of courses are stated clearly and that their content is based upon recognisable vocational needs (Section 11.4).

- Maximum status commensurate with the best interests of students should be granted for TAFE middle-level Certificate courses in higher education courses (Section 11.4).

(c) The counselling activity.

- The admission staff of higher education institutions should visit feeder technical colleges regularly.

- Staff from feeder TAFE institutions should visit the campus of higher education institutions regularly for general discussions, but particularly for discussions with former students.

- There should be an annual joint review of the TAFE middle-level Certificate courses which are accepted for admission by higher education institutions and of the advanced status which is accorded to those courses in higher education courses.

  The detailed outcomes of these reviews should be available publicly.

(d) The administration activities.

- Establishing the articulation machinery. Knoell and Medsker (1965) stated that a very fundamental question concerns the relative advantages of voluntary and compulsory articulation machinery and, if the former, how firm agreement to which all parties will be committed can be reached.

  In the first instance, in Australia it is suggested that articulation agreements be sought voluntarily by demonstrating to the institutions concerned that such agreements are in their interests.

  The development of a voluntary articulation agreement for South Australia was recommended by Skull (1982) and endorsed by TEASA. Similar investigations are proceeding in Queensland and Western Australia (Chapter 7).

  These efforts are disparate and unco-ordinated and, at least in South Australia, have been relatively ineffective. Regardless of the view that arrangements should be between institutions (Beswick et al., 1983) the organisation of TAFE in Australia is centralised,

in that little freedom to determine curriculum is left to individual colleges and therefore there needs to be a strong central impetus if such agreements are to be developed. It is RECOMMENDED that the Conference of Directors of Technical and Further Education should invite its members to take the initiative in each State to develop articulation agreements between TAFE and higher education courses in accordance with the benchmarks set out above. In the first instance, these agreements would generally be within a State, but there is no reason why they should not be extended across State boundaries.

- Responsibility for articulation. There should be an articulation committee where the various parties with vested interests are represented, viz. the universities, the colleges of advanced education, the TAFE colleges, State departments of TAFE, and professional associations (e.g. Australian Society of Engineers).

As a first step in its initiatives it is RECOMMENDED that the Conference should sponsor in association with the Commonwealth Tertiary Education Commission and the Australian Vice-Chancellors Committee a seminar of representatives from all three tertiary sectors and selected professional associations to consider the problems in developing a workable articulation system between TAFE and higher education.

It is recognised that many higher education institutions are unique to the extent of being eclectic and idiosyncratic. For this reason within the general benchmarks identified, the articulation agreements will need to be on an institution to TAFE Authority basis.

11.7 A CLEARINGHOUSE FOR ADMISSION AND CREDIT TRANSFER INFORMATION

Regardless of whether formal articulation agreements have been reached or not, the actual situation as it applies at any particular time should be public and a handbook published, possibly by a body parallel to the United Kingdom Education Counselling and Credit Transfer Information System (ECCTIS). Such a handbook should contain information about:

- admission conditions for each course of study in each higher education institution, including the acceptability of TAFE middle-level Certificate courses;

- the status available from other courses.

Statements such as:

> . . . as there are quotas on enrolments in many courses, possession of the academic qualification required for admission does not necessarily mean that a

> student will be able to enter his preferred course (DEYA, 1983, p. 3).

are obviously uninformative for the intending student. As Gibb (1979) said:

> The student, his parents and his teachers or other advisors need to know what the admissions policies to particular courses are, in detail, and they need to know what admission levels have been in recent years and are likely to be in the year of concern. Further, it can certainly be argued that publicly funded institutions have an obligation to make public such critical information (p. 45).

The recommendation above is general and not specific to TAFE middle-level Certificate courses. The point is that the TAFE middle-level Certificate course is one of a number of entrance possibilities to higher education courses. The need is for public information to be available on them all.

Barrett and Powell (1980) said that there was evidence showing that many students perform poorly or withdraw from their programs because their enrolment decision was based on inadequate information and a failure to consider subsequently its full implication. Barrett (1981) recommended that the Commonwealth Department of Education set up a national clearinghouse responsible for collecting and disseminating comprehensive information about institutions and courses. This recommendation is supported.

For TAFE in particular, the information should be a subset of the national collection. It is RECOMMENDED that this be the immediate reponsibility of the TAFE National Clearinghouse.

It is RECOMMENDED that a co-ordinating committee consisting of representatives from all three tertiary education sections and selected professional associations should be appointed to advise on the work of a clearinghouse on admissions and credit transfer information.

11.8 SUMMARY OF RECOMMENDATIONS

11.8.1 Selection

1. The CTEC consider, together with its constituent councils, the provision of a grant to investigate the development of employment motivation tests in order to assist in selecting between those with the basic qualifications for admission to higher education courses.

2. The Conference of Directors of TAFE consider the sponsorship (in association with the CTEC and the AVCC) of a seminar of representatives from the secondary and all three sections of the tertiary sectors in order to consider means by which the recommendations of secondary schools and TAFE institutions might be taken into account in selecting for higher education.

11.8.2 Granting of status

3. The Conference of Directors of TAFE invite its members to seek to develop curriculum co-operation between the sections of the tertiary sector by introducing into their curriculum processes steps to ensure that the purposes of courses are stated clearly and that the content is based upon recognisable vocational needs.

4. In seeking to develop curriculum co-operation between the sections of the tertiary sector, the Conference of Directors of TAFE should invite its members to include in their curriculum processes

   - improved communication between institutions;
   - participation of the higher education sectors in TAFE course planning and development;
   - participation of the other sections of the sector in course review, rationalisation, assessment and accreditation;
   - membership of the other sections of the sector on institutional councils and standing curriculum committees.

5. The Conference of Directors of TAFE should initiate steps to organise TAFE middle-level Certificate courses on a credit point system.

6. The CTEC recommend to the Commonwealth Government an allocation of $100 000 for commissioning the development of a bank of test items using the business studies discipline as a pilot.

11.8.3 Experiments on status and admission

7. The CTEC recommend to the Commonwealth Government that it allocate $750 000 per year over the three years 1986-1988 to fund programs of the following types:

   (a) admission to higher education institutions which have not as a matter of policy admitted students on the basis of a TAFE middle-level qualification, of students with such qualifications to courses relevant to their qualification, and monitoring the progress of these students by comparison with the progress of students who have matriculated in the normal way;

   (b) granting status (in general one full year of the course) to students with TAFE middle-level qualifications by higher education institutions which have, as a matter of policy, admitted students on the basis of these qualifications but who have not generally granted status to that extent, and monitoring of progress of these students by comparison with the progress of other students entering the second year of the course.

(c) the development of experiments in designing courses to bridge any gap between the terminal point of TAFE middle-level courses and the entrance point of a related higher education course.

8. The CTEC invite tenders for any of the above experiments from suitable higher education institutions and that each tender should specify:

- the number of students who it is intended should participate in the program by faculty;
- the monitoring and reporting procedures intended;
- in the case of 7 (c), an outline and rationale for the curriculum to be followed.

11.8.4 **Articulation**

9. The Conference of Directors of TAFE invite its members to take the initiative in each State to develop articulation agreements between TAFE Authorities and higher education institutions.

Such an agreement should include the following benchmarks:

(a) Satisfactory completion of an approved middle-level TAFE Certificate should guarantee meeting the entrance requirements of relevant higher education courses.

(b) Maximum status commensurate with the best interests of students should be granted for TAFE middle-level Certificate courses in higher education courses.

(c) There should be annual joint review of TAFE middle-level Certificate courses which are accepted for admission by higher education institutions and of the advanced status which is accorded to these courses in higher education courses.

10. The Conference of Directors of TAFE, in association with the CTEC and the Australian Vice Chancellors' Committee, sponsor a seminar of representatives of all three tertiary sections and selected professional associations to consider the problems in developing a workable articulation system between TAFE and higher education.

11.8.5 **Information**

11. A national admissions and credit transfer information clearinghouse with responsibility for collecting and disseminating comprehensive information on these topics be established. For TAFE in particular, the establishment of the information clearinghouse should be the reponsibility of the TAFE National Clearinghouse.

12. A co-ordinating committee consisting of representatives from all three tertiary sectors and selected professional associations be appointed to advise on the work of the admissions and credit transfer information clearinghouse.

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APPENDIX A

LIAISON OFFICERS APPOINTED BY TAFE AUTHORITIES

Australian Capital Territory

Mr B. Macoustra, Assistant Director, Buildings and Curriculum Branch, Office of ACT Further Education.

New South Wales

Mr Ron Neilsen, Senior Education Officer, Department of Technical and Further Education.

Northern Territory

Mr John Weatherhead, Assistant Director of Planning, NT Vocational Training Commission.

Queensland

Mr Bryan Eaton, Principal Education Officer, Curriculum Branch, Division of TAFE, Department of Education, Brisbane.

South Australia

Mr John McCarthy, Principal Education Officer, Curriculum Development Branch, Department of TAFE, Adelaide.

Tasmania

Mr Frank Stronach, Acting Co-ordinator, Services and Courses, Division of Technical and Further Education, Education Department, Hobart.

Victoria

Mr Norm Shearer, Manager, Programme Planning, Technical and Further Education Board.

Western Australia

Mr John Hainsworth, Acting Director of Programmes and College Development, Technical Education Division, Education Department of Western Australia.

APPENDIX B

TAFE National Centre
for Research and Development Ltd.
Inc. in South Australia
296 Payneham Road, Payneham,
S.A. 5070, Australia
Phone 42 7905 (08)

22nd May, 1984.

Project on: Articulation of higher education and TAFE middle-level courses

The concept that education is an experience which can continue througnout life has influenced many older Australians to the extent that they are seeking entrance to higher education by means other than the traditional process of matriculation. Higher education institutions have recognised this change and many have introduced varying selection procedures to accommodate it.

Among the persons who might be expected to perform well in higher education institutions are those who have completed relevant TAFE middle-level Certificate courses (diplomas in Western Australia). Not only have they gained knowledge relevant to higher education courses, but also they have displayed motivation in completing what is usually a four year part-time course. In addition, parallel to their studies, these people have often gained industrial or commercial experience which is relevant to the higher education course in which they are interested.

In the complex matter of selection for higher education, little fact appears to be known about the actual degree of articulation between TAFE middle-level (Certificate) and higher education courses. It is suggested that it would be helpful to collect what data are available so that the mechanisms of articulation can be understood better by all involved. In particular, it is suggested that an understanding of the mechanisms would be very helpful to individual universities and colleges of advanced education as each considers its own admission policy.

Accordingly, the TAFE National Centre for Research and Development has commissioned a project with a two-fold purpose:

1. To examine the extent to which TAFE middle-level courses are accepted currently as sufficient qualification for entry to relevant courses in colleges of advanced education and universities.

   In particular it is intended to identify:

   a) the number of students who have completed TAFE middle-level courses successfully, and who attempt to use these TAFE courses as qualification for entrance;

   b) the number of students who are accepted on the basis of their TAFE qualifications;

   c) the success of students who have been admitted on the basis of TAFE middle-level courses, compared with the success of matriculated students.

2. To examine the credit which is allowed currently in relevant college of advanced education and university courses for work done on TAFE middle-level courses.

   This will be looked at from two aspects:

   a) the credit given to students who have undertaken relevant TAFE middle-level courses, and, who have matriculated in the normal way;

   b) the credit given to students who have used their TAFE middle-level courses as qualifications for admission.

For the purposes of this study, TAFE middle-level courses are deemed to be those classified as Stream 2 by the Commonwealth Tertiary Education Commission.

The definition is as under:

"Stream 2 (para-professional)——Courses provided for those preparing to enter or progress within middle-level or technician occupations. Includes a wide range of 'certificate' courses and some 'special' courses which are similar in complexity and purpose."

The study does not cover secondary type tertiary preparation courses (such as the TOP program in Victoria).

So that we might collect the facts in a form which is simple for higher education institutions, we are piloting a questionnaire in order to judge its effectiveness for our purpose.

Therefore we are seeking your co-operation in the completion of the attached questionnaire. It is understood that in some instances your records may not be arranged in such a way as to make the information available readily. In such cases we would be grateful for the opportunity to discuss other means by which we might obtain the relevant informatiton.

It would be appreciated if Mr Kevin Parkinson, who has been commissioned by the Centre to undertake the project, could discuss the project with a nominated officer of your institution. He can be contacted at the Centre on (08) 42 7905.

Yours sincerely,

Graham D. Hermann
Co-ordinator

Encl:

APPENDIX C

Appendix C

TAFE National Centre
for Research and Development Ltd.
Inc. in South Australia
296 Payneham Road. Payneham.
S.A. 5070. Australia
Phone 42 7905 (08)

21st July, 1984.

Project on: Articulation of higher education and TAFE middle-level courses

The concept that education is an experience which can continue throughout life has influenced many older Australians to the extent that they are seeking entrance to higher education by means other than the traditional process of matriculation. Higher education institutions have recognised this change and many have introduced varying selection procedures to accommodate it.

Among the persons who might be expected to perform well in higher education institutions are those who have completed relevant TAFE middle-level Certificate courses (diplomas in Western Australia). Not only have they gained knowledge relevant to higher education courses, but also they have displayed motivation in completing what is usually a four year part-time course. In addition, parallel to their studies, these people have often gained industrial or commercial experience which is relevant to the higher education course in which they are interested.

In the complex matter of selection for higher education, little fact appears to be known about the actual degree of articulation between TAFE middle-level (Certificate) and higher education courses. It is suggested that it would be helpful to collect what data are available so that the mechanisms of articulation can be understood better by all involved. In particular, it is suggested that an understanding of the mechanisms would be very helpful to individual universities and colleges of advanced education as each considers its own admission policy.

Accordingly, the TAFE National Centre for Research and Development has commissioned a project with a two-fold purpose:

1. To examine the extent to which TAFE middle-level courses are accepted currently as sufficient qualification for entry to relevant courses in colleges of advanced education and universities.

   In particular it is intended to identify:

   a) the number of students who have completed TAFE middle-level courses successfully, and who attempt to use these TAFE courses as qualification for entrance;

   b) the number of students who are accepted on the basis of their TAFE qualifications;

   c) the success of students who have been admitted on the basis of TAFE middle-level courses, compared with the success of matriculated students.

2. To examine the credit which is allowed currently in relevant college of advanced education and university courses for work done on TAFE middle-level courses.

   This will be looked at from two aspects:

   a) the credit given to students who have undertaken relevant TAFE middle-level courses, and, who have matriculated in the normal way;

   b) the credit given to students who have used their TAFE middle-level courses as qualifications for admission.

For the purposes of this study, TAFE middle-level courses are deemed to be those classified as Stream 2 by the Commonwealth Tertiary Education Commission.

The definition is as under:

"Stream 2 (para-professional)——Courses provided for those preparing to enter or progress within middle-level or technician occupations. Includes a wide range of 'certificate' courses and some 'special' courses which are similar in complexity and purpose."

The study does not cover secondary type tertiary preparation courses (such as the TOP program in Victoria).

So that we might collect the facts in a form which is simple for higher education institutions, we are seeking your co-operation in the completion of the attached questionnaire. It is understood that in some instances your records may not be arranged in such a way as to make the information available readily. In such cases we would be grateful for the opportunity to discuss other means by which we might obtain the relevant information.

It would be appreciated if Mr Kevin Parkinson, who has been commissioned by the Centre to undertake the project, could discuss the project with a nominated officer of your institution. He can be contacted at the Centre on (08) 42 7905.

Yours sincerely,

Graham D. Hermann
Executive Director

Encl:

APPENDIX D

OFFICERS WHO RESPONDED FOR HIGHER EDUCATION INSTITUTIONS

Barrie, S., Head, Computing Services, Western Australian College of Advanced Education.

Blackburn, A.G., Acting Principal, Marcus Oldham Farm Management College.

Buchan, H.J., Registrar, The Flinders University of South Australia.

Burnet, R., Registrar, Victorian College of Pharmacy Ltd.

Burnett, N.J.S., Registrar, Hawkesbury Agricultural College.

Butchard, J.D., Registrar Monash University.

Cavanagh, T., Senior Administration Officer (Academic Services), Darling Downs Institute of Advanced Education.

Chester, K.N., Registrar, James Cook University of North Queensland.

Childers, H., Co-ordinator of Student Administration, Brisbane College of Advanced Education.

Dimmitt, H., Acting Secretary, Student Administration, Victoria College.

Eadie, G.McL., Secretary, Canberra College of Advanced Education.

Ford, A.J.T., Registrar, Macquarie University.

Gallagher, R., Assistant Registrar (Information Management), La Trobe University.

Hardy, S.A., Academic Secretary, Roseworthy Agricultural College.

Johns, J., Registrar, New South Wales State Conservatorium of Music.

Kean, T.W.C., Assistant Registrar, Melbourne College of Advanced Education.

Knight, M.D., Academic Registrar, Phillip Institute of Technology.

Langridge, J.W., Acting University Secretary, The University of Wollongong.

MacWilliam, R., Assistant Secretary (Academic), Murdoch University.

O'Neill, F.J., Registrar, The University of Adelaide.

Palfrey, B.G., Acting Registrar, The University of Tasmania.

Parkinson, G.L., Assistant Registrar (Academic), Newcastle College of Advanced Education.

Pike, E., Course Information Officer, Royal Melbourne Institute of Technology.

Potter, J.G., Registrar, The University of Melbourne.

Way, I.R., Registrar, The University of New South Wales.

White, P.M., Acting Registrar, The Australian National University.

Window, K.G., Student Secretary, Griffith University.

APPENDIX E

TAFE NATIONAL CENTRE FOR RESEARCH AND DEVELOPMENT LTD.

QUESTIONNAIRE

On articulation of university and TAFE middle-level (Certificate) courses

1. Does your institution have a policy on the acceptance of TAFE middle-level courses as a qualification for admission to bachelor degree courses at the institution.

Please tick appropriate box

Yes ☐ No ☐

If YES, please state the policy

(1) SCIENCE .....

.....

.....

(2) ENGINEERING .....

.....

.....

(3) BUSINESS STUDIES .....

.....

.....

(4) ART AND DESIGN .....

.....

.....

(5) OTHERS .....

.....

.....

If NO, please indicate any procedures which may be instituted as an ad hoc response to requests for admission to your institution by applicants holding TAFE middle-level qualification

.....

.....

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.....

.....

From here on sample forms only are provided as an identical form was requested for each discipline, e.g:

Question 2—

(1) Science
(2) Engineering
(3) Business Studies
(4) Art and Design
(5) Other

2. Statistical information on admission to Bachelor courses

(1) SCIENCE

	YEAR					
	Example	1980	1981	1982	1983	1984
a) How many students have attempted to use a successfully completed TAFE middle-level course as a qualification for entrance to a bachelor course at your institution	210					
b) Of a) above (e.g. 210) how many were offered admission	195					
c) Of b) above (e.g. 195) how many actually enrolled						
Full time	146					
Part time	15					
d) Of c) above (e.g. 146 and 15) what proportion were successful in examinations at the end of the first year. Successful is defined as a pass in all subjects enrolled—full time or part time						
Full time	0.72	0.--	0.--	0.--	0.--	0.--
Part time	0.25	0.--	0.--	0.--	0.--	0.--
e) What proportion of all students enrolled were successful in examinations at the end of the first year						
Full time	0.65	0.--	0.--	0.--	0.--	0.--
Part time	0.43	0.--	0.--	0.--	0.--	0.--

3. Does your institution have a policy on giving credit (status) to students who have undertaken relevant TAFE middle-level courses, and, who have matriculated in the normal way.

Please tick appropriate box

Yes ☐ No ☐

If YES, please state the policy

(1) SCIENCE .....

.....

.....

(2) ENGINEERING .....

.....

.....

(3) BUSINESS STUDIES .....

.....

.....

(4) ART AND DESIGN .....

.....

.....

(5) OTHERS .....

.....

.....

4. Statistical information on status in bachelor courses for matriculated students who have completed TAFE middle-level courses

(1) SCIENCE

	YEAR					
	Example	1980	1981	1982	1983	1984
a) How many students who have matriculated in the normal way have attempted to obtain status in a bachelor course at your institution on the basis of a successfully completed TAFE middle-level course	210					
b) Of a) above (e.g. 210) how many were granted status	195					
c) Of b) above (e.g. 195) how many actually enrolled						
Full time	146					
Part time	15					
d) Of c) above (e.g. 146 and 15) what proportion were successful in examinations at the end of the year in which they enrolled Successful is defined as a pass in all subjects enrolled—full time or part time						
Full time	0.72	0.--	0.--	0.--	0.--	0.--
Part time	0.25	0.--	0.--	0.--	0.--	0.--

5. Does your institution have a policy on giving credit (status) to students for TAFE middle-level courses which the student has used as qualification for admission.

Please tick appropriate box

Yes	No
☐	☐

If YES, please state policy

(1) SCIENCE .....

.....

.....

(2) ENGINEERING .....

.....

.....

(3) BUSINESS STUDIES .....

.....

.....

(4) ART AND DESIGN .....

.....

.....

(5) OTHERS .....

.....

.....

6. Statistical information on status in Bachelor courses for students who have used a TAFE middle-level course as a qualification for admission

(1) SCIENCE

	YEAR					
	Example	1980	1981	1982	1983	1984
a) How many students who have gained admission to bachelor courses on the basis of a successfully completed TAFE course have attempted to obtain status on the basis of that same course	210					
b) Of a) above (e.g. 210) how many were granted status	195					
c) Of b) above (e.g. 195) how many actually enrolled						
Full time	146					
Part time	15					
d) Of c) above (e.g. 146 and 15) what proportion were successful in examinations at the end of the year in which they enrolled Successful is defined as a pass in all subjects enrolled—full time or part time						
Full time	0.72	0.--	0.--	0.--	0.--	0.--
Part time	0.25	0.--	0.--	0.--	0.--	0.--

7. Do you have any other data concerning the performance of TAFE certificate holders in Bachelor courses

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8. Name and telephone number of persons who can be contacted for further information

Name .....

Telephone number .....

APPENDIX F

TAFE NATIONAL CENTRE FOR RESEARCH AND DEVELOPMENT LTD.

QUESTIONNAIRE

On articulation of College of Advanced Education

and TAFE middle-level (Certificate) courses

1. Does your institution have a policy on the acceptance of TAFE middle-level courses as a qualification for admission to UG1, UG2 or UG3

Please tick appropriate box

	Yes	No
UG1	☐	☐
UG2	☐	☐
UG3	☐	☐

If YES, please state the policy

UG1 (1) SCIENCE .....

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(2) ENGINEERING .....

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(3) BUSINESS STUDIES .....

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(4) ART AND DESIGN .....

.....

.....

(5) OTHERS .....

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.....

UG2 (1) SCIENCE .....

.....

.....

(2) ENGINEERING .....

.....

.....

(3) BUSINESS STUDIES .....

.....

.....

(4) ART AND DESIGN .....

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.....

(5) OTHERS .....

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UG3 (1) SCIENCE .....

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.....

(2) ENGINEERING .....

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(3) BUSINESS STUDIES .....

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(4) ART AND DESIGN .....

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(5) OTHERS .....

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If NO, please indicate any procedures which may be instituted as an ad hoc response to requests for admission to your institution by applicants holding TAFE middle-level qualification

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From here on sample forms only are provided as an identical form was requested for UG1, UG2 and UG3 courses.

A separate discipline was covered in each question:

Question 2—Science
Question 3—Engineering
Question 4—Business Studies
Question 5—Art and Design
Question 6—Other.

2. Statistical information for SCIENCE courses

(1) UG1

	YEAR					
	Example	1980	1981	1982	1983	1984
a) How many students have attempted to use a successfully completed TAFE middle-level course as a qualification for entrance to a UG1 course at your institution	210					
b) Of a) above (e.g. 210) how many were offered admission	195					
c) Of b) above (e.g. 195) how many actually enrolled						
Full time	146					
Part time	15					
d) Of c) above (e.g. 146 and 15) what proportion were successful in examinations at the end of the first year. Successful is defined as a pass in all subjects enrolled—full time or part time						
Full time	0.72	0.--	0.--	0.--	0.--	0.--
Part time	0.25	0.--	0.--	0.--	0.--	0.--
e) What proportion of all students enrolled were successful in examinations at the end of the first year						
Full time	0.65	0.--	0.--	0.--	0.--	0.--
Part time	0.43	0.--	0.--	0.--	0.--	0.--

7. Does your institution have a policy on giving credit (status) to students who have undertaken relevant TAFE middle-level courses, and, who have qualified for entrance in the normal way.

Please tick appropriate box

	Yes	No
UG1	☐	☐
UG2	☐	☐
UG3	☐	☐

If YES, please state the policy

UG1 (1) SCIENCE .....

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(2) ENGINEERING .....

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.....

(3) BUSINESS STUDIES .....

.....

.....

(4) ART AND DESIGN .....

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.....

(5) OTHERS .....

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UG2 (1) SCIENCE .....

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(2) ENGINEERING .....

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.....

(3) BUSINESS STUDIES .....

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(4) ART AND DESIGN .....

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(5) OTHERS .....

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UG3 (1) SCIENCE .....

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.....

(2) ENGINEERING .....

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(3) BUSINESS STUDIES .....

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.....

(4) ART AND DESIGN .....

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(5) OTHERS .....

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8. Statistical information on status in SCIENCE for matriculated students who have completed TAFE middle-level courses

(1) UG1

	YEAR					
	Example	1980	1981	1982	1983	1984
a) How many students who have matriculated in the normal way have attempted to obtain status in a UG1 course at your institution on the basis of a successfully completed TAFE middle-level course	210					
b) Of a) above (e.g. 210) how many were granted status	195					
c) Of b) above (e.g. 195) how many actually enrolled						
Full time	146					
Part time	15					
d) Of c) above (e.g. 146 and 15) what proportion were successful in examinations at the end of the year in which they enrolled Successful is defined as a pass in all subjects enrolled—full time or part time						
Full time	0.72	0.--	0.--	0.--	0.--	0.--
Part time	0.25	0.--	0.--	0.--	0.--	0.--

Questions 9-12 covering the other disciplines had identical forms.

13. Does your institution have a policy on giving credit to students for TAFE middle-level courses which the student has used as qualification for admission.

Please tick appropriate box

	Yes	No
UG1	☐	☐
UG2	☐	☐
UG3	☐	☐

If YES, please state policy

UG1 (1) SCIENCE .....

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(2) ENGINEERING .....

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(3) BUSINESS STUDIES .....

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(4) ART AND DESIGN .....

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(5) OTHERS .....

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UG2 (1) SCIENCE .....

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(2) ENGINEERING .....

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(3) BUSINESS STUDIES .....

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(4) ART AND DESIGN .....

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(5) OTHERS .....

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UG3 (1) SCIENCE .....

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(2) ENGINEERING .....

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(3) BUSINESS STUDIES .....

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(4) ART AND DESIGN .....

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(5) OTHERS .....

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14. Statistical information on status in SCIENCE courses for students who have used a TAFE middle-level course as a qualification for admission

(1) UG1

	YEAR					
	Example	1980	1981	1982	1983	1984
a) How many students who have gained admission to UG1 courses on the basis of a successfully completed TAFE course have attempted to obtain status on the basis of that same course	210					
b) Of a) above (e.g. 210) how many were granted status	195					
c) Of b) above (e.g. 195) how many actually enrolled						
Full time	146					
Part time	15					
d) Of c) above (e.g. 146 and 15) what proportion were successful in examinations at the end of the year in which they enrolled						
Successful is defined as a pass in all subjects enrolled—full time or part time						
Full time	0.72	0.--	0.--	0.--	0.--	0.--
Part time	0.25	0.--	0.--	0.--	0.--	0.--

Questions 15-18 covering the other disciplines had identical forms.

19. Do you have any other data concerning the performance of TAFE certificate holders in UG1, UG2, UG3 courses

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20. Name and telephone number of persons who can be contacted for further information

Name .....

Telephone number .....

APPENDIX G

Table 1

NUMBER OF STUDENTS COMMENCING AN UNDERGRADUATE BACHELOR COURSE WHO HAD GIVEN A TECHNICAL COLLEGE QUALIFICATION AS THE HIGHEST QUALIFICATION ATTEMPTED BY TYPE OF ATTENDANCE, SEX AND UNIVERSITY FOR 1980—1983

YEAR		1980			1981			1982			1983			TOTAL 1980–1983		
UNIVERSITY		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Sydney	f/t	17	23	40	22	11	33	16	22	38	18	14	32	73	70	143
	p/t	5	9	14	4	5	9	3	9	12	4	11	15	16	34	50
N.S.W.	f/t	51	41	92	41	33	74	28	25	53	26	21	47	146	120	266
	p/t	38	21	59	44	27	71	25	22	47	21	18	39	128	88	216
Wollongong	f/t	11	3	14	12	7	19	16	5	21	33	11	44	72	26	98
	p/t	50	19	69	71	23	94	86	14	100	52	11	63	259	67	326
New England	f/t	13	11	24	17	7	24	10	7	17	14	11	25	54	36	90
	p/t	75	48	123	82	81	163	73	65	138	60	55	115	290	249	539
Newcastle	f/t	4	4	8	4	6	10	11	8	19	26	11	37	45	29	74
	p/t	46	21	67	45	21	66	50	13	63	44	18	62	185	73	258
Macquarie	f/t	16	20	36	20	20	40	14	13	27	12	17	29	62	70	132
	p/t	66	58	124	62	57	119	56	48	104	67	57	124	251	220	471

continued

Table 1 (cont'd)

YEAR		1980			1981			1982			1983			TOTAL 1980–1983		
UNIVERSITY		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Melbourne	f/t	15	8	23	10	3	13	9	8	17	7	13	20	41	32	73
	p/t	-	1	1	-	3	3	3	2	5	-	3	3	3	9	12
Monash	f/t	18	9	27	8	-	8	4	4	8	4	3	7	34	16	50
	p/t	4	5	9	3	6	9	2	3	5	-	3	3	9	17	26
La Trobe	f/t	-	1	1	-	-	-	-	-	-	-	-	-	-	1	1
	p/t	1	2	3	-	-	-	-	-	-	-	-	-	1	2	3
Deakin	f/t	2	7	9	6	2	8	2	4	6	4	9	13	14	22	36
	p/t	44	36	80	26	41	67	27	34	61	41	45	86	138	156	294
Queensland	f/t	8	6	14	6	1	7	5	8	13	5	6	11	24	21	45
	p/t	33	25	58	37	28	65	28	29	57	31	19	50	129	101	230
James Cook	f/t	3	4	7	5	1	6	4	3	7	7	2	9	19	10	29
	p/t	3	-	3	3	-	3	4	-	4	2	-	2	12	-	12
Griffith	f/t	9	6	15	8	5	13	3	2	5	7	5	12	27	18	45
	p/t	5	2	7	4	4	8	15	5	20	30	18	48	54	29	83

continued

Table 1 (cont'd)

YEAR		1980			1981			1982			1983			TOTAL 1980–1983		
UNIVERSITY		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Adelaide	f/t	6	2	8	7	-	7	7	2	9	7	3	10	27	7	**34**
	p/t	1	2	3	6	2	8	4	1	5	5	2	7	16	7	**23**
Flinders	f/t	7	2	9	10	2	12	8	4	12	8	2	10	33	10	**43**
	p/t	5	6	11	8	2	10	2	5	7	6	4	10	21	17	**38**
Western Australia	f/t	7	3	10	6	3	9	7	3	10	10	4	14	30	13	**43**
	p/t	13	13	26	5	8	13	7	15	22	7	8	15	32	44	**76**
Murdoch	f/t	3	3	6	-	-	-	1	-	1	6	1	7	10	4	**14**
	p/t	6	10	16	-	-	-	2	-	2	13	8	21	21	18	**39**
Tasmania	f/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
	p/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Australian National	f/t	-	-	-	9	8	17	7	5	12	11	7	18	27	20	**47**
	p/t	1	-	1	22	21	43	22	13	35	21	19	40	66	53	**119**
TOTAL	f/t	190	153	343	191	109	300	152	123	275	205	140	345	738	525	**1263**
	p/t	396	278	674	422	329	751	409	278	687	404	299	703	1631	1184	**2815**
ALL STUDENTS		586	431	1017	613	438	1051	561	401	962	609	439	1048	2369	1709	**4078**

Table 2

COMMENCING STUDENTS ENROLLED IN UNDERGRADUATE BACHELOR COURSES
WHO HELD TECHNICAL COLLEGE QUALIFICATIONS AS THEIR HIGHEST QUALIFICATION
BY UNIVERSITY FOR 1980-1983
(ABSOLUTE NUMBER AND PERCENTAGE OF TOTAL COMMENCING STUDENTS)

YEAR	1980			1981			1982			1983			TOTAL 1980-83		
UNIVERSITY	ST	TS	%	ST	TS	%	ST	TS	%	ST	TS	%	ST	TS	%
Sydney	54	4491	1.20	42	4238	0.99	50	4133	1.23	47	4169	1.13	193	17031	1.13
N.S.W.	151	3929	3.83	145	4115	3.52	100	3859	2.59	86	3447	2.49	482	15350	3.14
Wollongong	83	859	9.66	113	926	12.20	121	952	12.71	107	990	10.81	424	3727	11.34
New England	147	2132	6.89	187	2410	7.76	155	2286	6.78	140	2052	6.82	629	8880	7.08
Newcastle	75	1184	6.33	76	1178	6.45	82	1132	7.24	99	1257	7.88	332	4751	6.99
Macquarie	160	2460	6.50	159	2364	6.72	131	2665	4.92	153	2724	5.62	603	10212	5.90
Melbourne	24	3684	0.65	16	3782	0.42	22	3600	0.61	23	3365	0.68	85	14431	0.59
Monash	36	3311	1.09	17	3239	0.52	13	3063	0.42	10	2838	0.35	76	12451	0.61
La Trobe	4	2349	0.17	-	2018	-	-	2169	-	-	2334	-	4	8870	0.05
Deakin	89	1923	4.63	75	1678	4.47	67	1583	4.23	99	1751	5.65	330	6935	4.76
Queensland	72	4496	1.60	72	4241	1.70	70	3973	1.76	61	3953	1.54	275	16663	1.65
James Cook	10	603	1.63	9	604	1.49	11	593	1.85	11	603	1.82	41	1403	1.71
Griffith	22	778	2.83	21	839	2.50	25	820	3.05	60	1202	4.99	128	3639	3.52

continued

Table 2 (cont'd)

YEAR	1980			1981			1982			1983			TOTAL 1980-83		
UNIVERSITY	ST	TS	%	ST	TS	%	ST	TS	%	ST	TS	%	ST	TS	%
Adelaide	11	2076	0.53	15	2127	0.71	14	2025	0.69	17	1959	0.87	57	8187	0.71
Flinders	20	953	2.10	22	857	2.57	19	981	1.94	20	1200	1.67	81	3991	2.03
Western Australia	36	2652	1.36	22	2706	0.81	32	2637	1.21	29	2680	1.08	119	10675	1.11
Murdoch	22	766	2.87	-	891	-	3	861	0.35	28	849	3.30	53	3367	1.57
Tasmania	-	1048	-	-	1505	-	-	1440	-	-	1454	-	-	5447	-
Australian National	1	1602	0.06	60	1460	4.11	47	1386	3.39	58	1554	3.73	166	6002	2.77
ALL STUDENTS	1017	41296	2.46	1051	41178	2.70	962	40157	2.40	1048	40381	2.60	4078	163012	2.50
	$\bar{x}$ = 2.84			$\bar{x}$ = 2.99			$\bar{x}$ = 2.89			$\bar{x}$ = 3.18			$\bar{x}$ = 2.98		
	S.D. = $\pm$ 2.68			S.D. = $\pm$ 3.19			S.D. = $\pm$ 3.09			S.D. = $\pm$ 2.99			S.D. = $\pm$ 2.94		

ST = Commencing students enrolled in undergraduate bachelor courses who held technical college qualifications

TS = Total number of commencing students in undergraduate bachelor courses

% = $\frac{TS}{ST} \times 100$

$\bar{x}$ = mean

S.D. = standard deviation

Table 3

FULL-TIME COMMENCING STUDENTS ENROLLED IN UNDERGRADUATE BACHELOR COURSES WHO HELD TECHNICAL COLLEGE QUALIFICATIONS AS THEIR HIGHEST QUALIFICATION BY UNIVERSITY FOR 1980-1983
(ABSOLUTE NUMBER AND PERCENTAGE OF FULL-TIME COMMENCING STUDENTS)

YEAR	1980			1981			1982			1983			TOTAL 1980-83		
UNIVERSITY	FST	FTS	%	FST	FTS	%	FST	FTS	%	FST	FTS	%	FST	FTS	%
Sydney	40	4156	0.96	33	3880	0.85	38	3861	0.98	32	3857	0.83	143	15754	0.91
N.S.W.	92	3269	2.81	74	3447	2.15	53	3244	1.63	47	2960	1.59	266	12920	2.06
Wollongong	14	440	3.18	19	421	4.51	21	535	3.93	44	705	6.24	98	2101	4.66
New England	24	803	2.99	24	742	3.23	17	796	2.14	25	876	2.85	90	3217	2.80
Newcastle	8	644	1.24	10	594	1.68	19	665	2.86	37	919	4.03	74	2822	2.62
Macquarie	36	1113	3.23	40	1134	3.53	27	1397	1.93	29	1525	1.90	132	5169	2.55
Melbourne	23	3148	0.73	13	3285	0.40	17	3162	0.54	20	3019	0.66	73	12614	0.58
Monash	27	2927	0.92	8	2849	0.28	8	2821	0.28	7	2573	0.27	50	11170	0.45
La Trobe	1	1928	0.05	-	1609	-	-	1843	-	-	2029	-	1	7409	0.01
Deakin	9	540	1.67	8	586	1.37	6	501	1.20	13	578	2.25	36	2205	1.63
Queensland	14	2660	0.53	7	2596	0.26	13	2634	0.49	11	2685	0.41	45	10575	0.43
James Cook	7	417	1.68	6	417	1.44	7	460	1.52	9	471	1.31	29	1765	1.64
Griffith	15	634	2.37	13	671	1.94	5	540	0.93	12	685	1.75	45	2530	1.78

continued

Table 3 (cont'd)

YEAR	1980			1981			1982			1983			TOTAL 1980-83		
UNIVERSITY	FST	FTS	%	FST	FTS	%	FST	FTS	%	FST	FTS	%	FST	FTS	%
Adelaide	8	1726	0.46	7	1764	0.40	9	1687	0.53	10	1634	0.61	34	6811	0.50
Flinders	9	765	1.18	12	725	1.66	12	781	1.54	10	988	1.01	43	3259	1.32
Western Australia	10	2263	0.44	9	2292	0.39	10	2293	0.44	14	2317	0.60	43	9165	0.47
Murdoch	6	374	1.60	-	413	-	1	484	0.21	7	479	1.46	14	1750	0.80
Tasmania	-	765	-	-	938	-	-	975	-	-	989	-	-	3667	-
Australian National	-	1043	-	17	933	1.82	12	947	1.27	18	1154	1.56	47	4077	1.15
ALL STUDENTS	343	29615	1.16	300	29296	1.02	275	29626	0.93	345	30443	1.13	1263	118980	1.06
	$\bar{x}$ = 1.37			$\bar{x}$ = 1.36			$\bar{x}$ = 1.18			$\bar{x}$ = 1.54			$\bar{x}$ = 1.38		
	S.D. ± 1.06			S.D. ± 1.25			S.D. ± 0.99			S.D. ± 1.35			S.D. ± 1.10		

FST = full time commencing students enrolled in undergraduate bachelor courses who held technical college qualifications

FTS = total number of full time commencing students enrolled in bachelor courses

$\% = \frac{FST}{FTS} \times 100$

$\bar{x}$ = mean

S.D. = standard deviation

Table 4

PART-TIME (INCLUDING EXTERNAL) COMMENCING STUDENTS ENROLLED IN UNDERGRADUATE BACHELOR COURSES WHO HELD TECHNICAL COLLEGE QUALIFICATIONS AS THEIR HIGHEST QUALIFICATION BY UNIVERSITY FOR 1980-1983 (ABSOLUTE NUMBER AND PERCENTAGE OF PART-TIME COMMENCING STUDENTS)

YEAR	1980			1981			1982			1983			TOTAL 1980-83		
UNIVERSITY	PST	PTS	%	PST	PTS	%	PST	PTS	%	PST	PTS	%	PST	PTS	%
Sydney	14	343	4.08	9	358	2.51	12	272	4.41	15	312	4.80	50	1285	3.89
N.S.W.	59	660	8.94	71	670	10.60	47	615	7.64	39	487	8.01	216	2432	8.88
Wollongong	69	425	16.24	94	506	18.58	100	417	24.98	63	285	22.10	326	1633	19.96
New England	123	1438	8.55	163	1860	8.76	138	1635	8.44	115	1323	8.69	539	6256	8.62
Newcastle	67	606	11.06	66	622	10.61	63	506	12.45	62	375	16.53	258	2109	12.23
Macquarie	124	1347	9.21	119	1230	9.67	104	1267	8.21	124	1199	10.34	471	5043	9.34
Melbourne	1	617	0.16	3	581	0.79	5	505	0.99	3	500	0.60	12	2203	0.54
Monash	9	581	1.55	9	494	1.82	5	339	1.47	3	346	0.87	26	1760	1.48
La Trobe	3	761	0.39	-	740	-	-	656	-	-	569	-	3	2726	0.11
Deakin	80	1383	5.78	67	1092	6.14	61	1082	5.64	86	1173	7.33	294	4730	6.22
Queensland	58	2001	1.90	65	1773	3.67	57	1478	3.86	50	1393	3.59	230	6645	3.46
James Cook	3	186	1.61	3	187	1.60	4	133	3.01	2	132	1.52	12	638	1.88
Griffith	7	144	4.86	8	168	4.76	20	280	7.14	48	517	9.28	83	1109	7.48

continued

Table 4 (cont'd)

YEAR	1980			1981			1982			1983			TOTAL 1980-83		
Adelaide	3	350	0.86	8	373	2.14	5	342	1.46	7	327	2.14	23	1392	1.65
Flinders	11	245	4.49	10	194	5.15	7	257	2.72	10	268	3.73	38	964	3.94
Western Australia	26	518	5.02	13	524	2.48	22	460	4.78	15	488	3.07	76	1990	3.82
Murdoch	16	392	4.08	-	478	-	2	377	0.53	21	370	5.68	39	1617	2.41
Tasmania	-	285	-	-	570	-	-	473	-	-	473	-	-	1801	-
Australian National	1	634	0.16	43	592	7.26	35	509	6.88	40	463	8.64	119	2198	5.41
ALL STUDENTS	674	12916	5.22	751	13012	5.77	687	11603	5.92	703	11000	6.39	2815	48531	5.80
	$\bar{x}$ = 4.73			$\bar{x}$ = 5.08			$\bar{x}$ = 5.51			$\bar{x}$ = 6.15			$\bar{x}$ = 5.33		
	S.D. = ± 4.29			S.D. = ± 4.33			S.D. = ± 5.69			S.D. = ± 4.78			S.D. = ± 4.83		

PST = part time commencing students enrolled in undergraduate bachelor courses who held technical college qualifications

PTS = total number of part time (including external) commencing students enrolled in bachelor courses

$\% = \frac{PST}{PTS} \times 100$

$\bar{x}$ = mean

S.D. = standard deviation

APPENDIX H

Table 1

ENROLMENTS IN COLLEGES OF ADVANCED EDUCATION OF STUDENTS WITH TAFE AS THE HIGHEST LEVEL OF PREVIOUS EDUCATION COMPARED WITH TOTAL ENROLMENTS BY STATE 1980-1983

YEAR	1980			1981			1982			1983			TOTAL 1980-1983		
STATE	TAFE	TOTAL	%	TAFE	TOTAL	%	TAFE	TOTAL	%	TAFE	TOTAL	%	TAFE	TOTAL	%
New South Wales	850	14807	5.74	950	16365	5.81	1271	17724	7.17	800	17475	4.58	3871	66371	5.83
Victoria	968	23200	4.15	941	24130	3.90	1089	22862	4.76	1604	23552	4.52	4062	93744	4.33
Queensland	239	9529	2.51	196	9294	2.11	166	9815	1.69	208	10376	2.00	809	39014	2.07
South Australia	258	7460	3.46	242	8045	3.01	203	6810	2.98	197	7086	2.78	900	29401	3.06
Western Australia	318	7541	4.22	297	7656	3.88	323	7602	4.25	357	8212	4.35	1295	31011	4.18
Tasmania	59	977	6.03	45	824	5.46	109	989	11.02	65	1410	4.60	278	4200	6.62
Northern Territory	-	-	-	-	-	-	23	322	7.14	12	468	2.56	35	790	4.43
Australian Capital Territory	115	2173	5.29	96	2075	4.63	111	2502	4.44	88	2972	2.36	410	9722	4.22
ALL STUDENTS	2807	65687	4.27	2767	68389	4.05	3295	68626	4.80	2791	71551	3.90	10660	274255	3.89
	$\bar{x}$ = 4.48			$\bar{x}$ = 4.11			$\bar{x}$ = 5.43			$\bar{x}$ = 3.46			$\bar{x}$ = 4.34		
	S.D. = ± 1.20			S.D. = ± 0.80			S.D. = ± 2.74			S.D. = ± 1.10			S.D. = ± 1.48		

$\bar{x}$ = mean

S.D. = standard deviation

2.1

Table 2

NUMBER OF STUDENTS COMMENCING A COURSE AT MAJOR CITY INSTITUTES OF TECHNOLOGY WHO HAD GIVEN A TECHNICAL COLLEGE QUALIFICATION AS THE HIGHEST QUALIFICATION ATTEMPTED BY TYPE OF ATTENDANCE, SEX AND INSTITUTE OF TECHNOLOGY FOR 1980–1983

YEAR		1980			1981			1982			1983			TOTAL 1980–1983		
INSTITUTE OF TECHNOLOGY		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
NSWIT	f/t	14	2	16	17	4	21	18	3	21	1	2	3	50	11	61
	p/t	187	19	206	183	22	105	108	32	140	61	11	72	639	84	723
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RMIT	f/t	34	11	45	13	4	17	10	6	16	8	2	10	65	23	88
	p/t	58	11	69	18	7	25	25	10	35	27	3	30	128	31	159
	Ext	10	7	17	8	-	8	11	2	13	11	2	13	40	11	51
QIT	f/t	5	2	7	5	-	5	6	-	6	2	2	4	18	4	22
	p/t	47	3	50	52	4	56	53	1	54	44	8	52	196	16	212
	Ext	-	-	-	1	-	1	-	2	2	1	-	1	2	2	4
SAIT	f/t	21	4	25	12	2	14	9	1	10	6	-	6	48	7	55
	p/t	151	15	166	107	9	116	102	12	114	82	9	91	441	45	487
	Ext	1	-	1	-	-	-	1	1	2	-	-	-	2	1	3
WAIT	f/t	34	6	40	26	17	43	37	12	49	42	24	66	139	59	198
	p/t	120	29	149	112	26	138	92	14	106	97	14	111	421	83	504
	Ext	23	6	29	22	4	26	15	3	18	21	8	29	81	21	201
TOTAL	f/t	108	15	133	73	27	100	80	22	102	59	30	89	320	104	424
	p/t	563	77	640	472	68	540	480	69	549	311	45	356	1826	259	2085
	Ext	34	13	47	31	4	35	27	8	35	33	10	43	125	35	160
ALL STUDENTS		705	115	820	576	99	675	587	99	686	403	85	488	2271	398	2669

Table 3

COMMENCING STUDENTS ENROLLED IN MAJOR CITY INSTITUTES OF TECHNOLOGY
WHO HELD TECHNICAL COLLEGE QUALIFICATIONS AS THEIR HIGHEST QUALIFICATION
BY INSTITUTE OF TECHNOLOGY FOR 1980–1983
(ABSOLUTE NUMBER AND PERCENTAGE OF TOTAL COMMENCING STUDENTS)

YEAR	1980			1981			1982			1983			TOTAL 1980–1983		
INSTITUTE OF TECHNOLOGY	TAFE	TOTAL	%	TAFE	TOTAL	%	TAFE	TOTAL	%	TAFE	TOTAL	%	TAFE	TOTAL	%
NSWIT	222	2213	10.03	226	2520	8.97	261	2363	11.05	75	2093	3.58	784	9189	8.53
RMIT	131	4999	2.62	50	5220	0.36	64	4238	1.51	53	4270	1.24	298	18727	1.59
QIT	57	2492	2.29	62	2495	2.48	62	2723	2.28	57	2663	2.14	238	10373	2.29
SAIT	192	2544	7.55	130	2624	4.95	126	2695	4.68	97	2803	3.46	545	10666	5.11
WAIT	218	4216	5.17	207	4358	4.75	173	4110	4.21	206	4576	4.50	804	17260	4.66
ALL STUDENTS	820	16464	4.98	675	17217	3.92	686	16129	4.25	488	16405	2.97	2669	66215	4.03
	$\bar{x}$ = 5.53			$\bar{x}$ = 4.30			$\bar{x}$ = 4.75			$\bar{x}$ = 2.98			$\bar{x}$ = 4.44		
	S.D. ± 3.29			S.D. ± 3.21			S.D. ± 3.76			S.D. ± 1.29			S.D. ± 2.74		

$\bar{x}$ = mean

S.D. = standard deviation

Table 4

FULL-TIME COMMENCING STUDENTS ENROLLED IN MAJOR CITY INSTITUTES OF TECHNOLOGY WHO HELD TECHNICAL COLLEGE QUALIFICATIONS AS THEIR HIGHEST QUALIFICATION BY INSTITUTE OF TECHNOLOGY FOR 1980–1983 (ABSOLUTE NUMBER AND PEPRCENTAGE OF TOTAL FULL-TIME COMMENCING STUDENTS)

YEAR	1980			1981			1982			1983			TOTAL 1980–1983		
INSTITUTE OF TECHNOLOGY	FST	FTS	%	FST	FTS	%	FST	FTS	%	FST	FTS	%	FST	FTS	%
NSWIT	16	786	2.04	21	932	2.25	21	865	2.18	3	884	0.34	61	3467	1.76
RMIT	45	2495	1.80	17	2679	0.63	16	2147	0.75	10	2348	0.43	88	9669	0.91
QIT	7	1189	0.59	5	1196	0.42	6	1325	0.45	4	1356	0.29	22	5066	0.43
SAIT	25	1127	2.22	14	1184	1.18	10	1346	0.74	6	1290	0.47	55	4947	1.11
WAIT	40	2108	1.90	43	2229	1.93	49	2139	2.29	66	2374	2.78	198	8850	2.24
ALL STUDENTS	133	7705	1.73	100	8220	1.22	102	7822	1.30	89	8252	1.08	424	31999	1.33
	$\bar{x}$ = 1.71			$\bar{x}$ = 1.28			$\bar{x}$ = 1.28			$\bar{x}$ = 0.86			$\bar{x}$ = 1.29		
	S.D. $\pm$ 0.74			S.D. $\pm$ 0.80			S.D. $\pm$ 0.88			S.D. $\pm$ 1.07			S.D. $\pm$ 0.71		

FST = full-time commencing students enrolled in major city institutes of technology who held technical college qualifications

FTS = total number of full-time commencing students enrolled in major city institutes of technology

$\bar{x}$ = mean

S.D. = standard deviation

Table 5

PART-TIME COMMENCING STUDENTS ENROLLED IN MAJOR CITY INSTITUTES OF TECHNOLOGY WHO HELD TECHNICAL COLLEGE QUALIFICATIONS AS THEIR HIGHEST QUALIFICATION BY INSTITUTE OF TECHNOLOGY FOR 1980-1983 (ABSOLUTE NUMBER AND PERCENTAGE OF TOTAL PART-TIME COMMENCING STUDENTS)

YEAR	1980			1981			1982			1983			TOTAL 1980-1983		
INSTITUTE OF TECHNOLOGY	PST	PTS	%	PST	PTS	%	PST	PTS	%	PST	PTS	%	PST	PTS	%
NSWIT	206	1426	14.45	205	1585	12.93	240	1497	16.03	72	1208	5.96	723	5716	12.65
RMIT	69	1921	3.59	25	1975	1.27	35	1627	2.15	30	1520	1.97	159	7043	2.26
QIT	50	1221	4.10	56	1224	4.58	54	1331	4.06	52	1208	4.30	212	4984	4.25
SAIT	166	1407	11.74	116	1435	8.08	114	1289	8.84	91	1480	6.15	487	5611	8.68
WAIT	149	1613	9.24	138	1617	8.53	106	1462	7.25	111	1680	6.61	504	6372	7.91
ALL STUDENTS	640	7588	8.43	540	7836	6.89	549	7206	7.62	356	7096	5.02	2085	29726	7.01
	$\bar{x}$ = 8.62			$\bar{x}$ = 7.08			$\bar{x}$ = 7.67			$\bar{x}$ = 5.00			$\bar{x}$ = 7.15		
	S.D. $\pm$ 4.24			S.D. $\pm$ 4.40			S.D. $\pm$ 5.36			S.D. $\pm$ 1.90			S.D. $\pm$ 4.05		

PST = part-time commencing students enrolled in central city institutes of technology who held technical college qualifications

PTS = total number of part-time commencing students enrolled in central city institutes of technology

$\bar{x}$ = mean

S.D. = standard deviation

Table 6

EXTERNAL COMMENCING STUDENTS ENROLLED IN MAJOR CITY INSTITUTES OF TECHNOLOGY WHO HELD TECHNICAL COLLEGE QUALIFICATIONS AS THEIR HIGHEST QUALIFICATION BY INSTITUTE OF TECHNOLOGY FOR 1980-1983 (ABSOLUTE NUMBER AND PERCENTAGE OF TOTAL EXTERNAL COMMENCING STUDENTS)

	1980			1981			1982			1983			TOTAL 1980-1983		
INSTITUTE OF TECHNOLOGY	EST	ETS	%	EST	ETS	%	EST	ETS	%	EST	ETS	%	EST	ETS	%
NSWIT	0	1	0	0	3	0	0	1	0	0	1	0	0	6	0
RMIT	17	583	2.92	8	566	1.41	13	464	2.80	13	402	3.23	51	2015	2.53
QIT	0	82	0	1	75	1.33	2	67	2.99	1	99	1.01	4	323	1.24
SAIT	1	10	10.00	0	5	0	2	60	3.33	0	33	0	3	108	2.78
WAIT	29	495	5.86	26	512	5.08	18	509	3.54	29	522	5.56	102	2038	5.00
ALL STUDENTS	47	1171	4.01	35	1161	3.01	35	1101	3.18	43	1057	4.07	160	4490	3.56
	$\bar{x}$ = 3.76			$\bar{x}$ = 3.13			$\bar{x}$ = 2.53			$\bar{x}$ = 1.96			$\bar{x}$ = 2.31		
	S.D. ± 3.79			S.D. ± 2.08			S.D. ± 1.44			S.D. ± 2.41			S.D. ± 1.87		

EST = external commencing students enrolled in major city institutes of technology who held technical college qualifications

ETS = total number of external commencing students enrolled in major city institutes of technology

$\bar{x}$ = mean

S.D. = standard deviation

APPENDIX I

Table 1

NUMBER OF STUDENTS COMMENCING A COURSE AT OTHER COLLEGES OF ADVANCED EDUCATION WHO HAD GIVEN A TECHNICAL COLLEGE QUALIFICATION AS THE HIGHEST QUALIFICATION ATTEMPTED BY TYPE OF ATTENDANCE, SEX AND COLLEGE OF ADVANCED EDUCATION FOR 1980–1983

YEAR		1980			1981			1982			1983			TOTAL 1980–1983		
COLLEGES OF ADVANCED EDUCATION		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
New South Wales																
Armidale CAE	f/t	-	2	2	1	4	5	1	-	1	-	-	-	2	6	8
	p/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ext	-	1	1	-	3	3	2	3	5	2	3	5	4	10	14
Catholic College of Education, Sydney	f/t	-	-	-	-	-	-	-	-	-	1	5	6	1	5	6
	p/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ext	-	-	-	-	-	-	1	-	1	-	-	-	1	-	1
Cumberland College of Health Sciences	f/t	-	2	2	2	3	5	2	4	6	-	-	-	4	9	13
	p/t	-	1	1	2	1	3	-	-	-	-	-	-	2	2	4
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hawkesbury Agricultural College	f/t	-	-	-	13	6	19	-	1	1	8	10	18	21	17	38
	p/t	2	4	6	1	4	5	-	-	-	2	1	3	5	9	14
	Ext	-	-	-	10	13	23	-	-	-	-	3	3	10	16	26
Kuring-gai CAE	f/t	2	8	10	8	6	14	11	8	19	13	5	18	34	27	61
	p/t	30	15	45	26	8	34	29	12	41	46	19	65	131	54	185
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Macarthur IAE	f/t	3	13	16	2	9	11	1	8	9	3	12	15	9	42	51
	p/t	3	2	5	3	3	6	5	4	9	20	9	29	31	18	49
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

continued

Table 1 (cont'd)

YEAR		1980			1981			1982			1983			TOTAL 1980–1983		
COLLEGES OF ADVANCED EDUCATION		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Mitchell CAE	f/t	3	5	8	4	2	6	7	8	15	8	6	14	22	21	43
	p/t	8	3	11	9	5	14	13	6	19	5	2	7	35	16	51
	Ext	45	12	57	78	16	94	80	18	98	74	12	86	277	58	335
Nepean CAE	f/t	1	4	5	2	9	11	-	-	-	2	5	7	5	18	23
	p/t	46	11	57	43	3	46	-	-	-	24	6	30	113	20	133
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Newcastle CAE	f/t	1	5	6	1	1	2	5	11	16	19	18	37	26	35	61
	p/t	3	4	7	29	31	60	22	38	60	11	6	17	65	79	144
	Ext	-	-	-	32	40	72	2	1	3	1	-	1	35	41	76
NSW Conservatorium of Music	f/t	-	-	-	-	-	-	1	-	1	1	-	1	2	-	2
	p/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northern Rivers CAE	f/t	4	5	9	8	6	14	4	5	9	12	11	23	28	27	55
	p/t	2	2	4	3	3	6	3	3	6	1	1	2	9	9	18
	Ext	7	1	8	5	-	5	7	1	8	5	2	7	24	4	28
Orange Agricultural College	f/t	3	1	4	-	3	3	-	-	-	3	1	4	6	5	11
	p/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ext	-	1	1	1	-	1	10	11	21	15	6	21	26	18	44
Riverina CAE	f/t	7	2	9	7	4	11	12	6	18	5	15	20	31	27	58
	p/t	7	5	12	6	10	16	15	5	20	10	13	23	38	33	71
	Ext	40	31	71	42	37	79	93	47	140	98	50	148	273	165	438
Sydney College of the Arts	f/t	6	5	11	7	17	24	3	10	13	7	5	12	23	37	60
	p/t	-	-	-	-	2	2	1	2	3	1	2	3	2	6	8
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

continued

Table 1 (cont'd)

YEAR		1980			1981			1982			1983			TOTAL 1980–1983		
COLLEGES OF ADVANCED EDUCATION		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Sydney CAE	f/t	16	35	51	6	22	28	11	23	34	49	48	97	82	128	210
	p/t	110	96	206	88	13	101	289	42	331	-	3	3	487	154	641
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wollongong IE	f/t	1	2	3	-	1	1	5	9	14	-	-	-	6	12	18
	p/t	-	-	-	-	-	-	6	2	8	-	-	-	6	2	8
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Victoria																
Ballarat CAE	f/t	50	31	81	49	29	78	4	1	5	2	2	4	105	63	168
	p/t	6	3	9	7	5	12	8	1	9	2	2	4	23	11	34
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bendigo CAE	f/t	21	26	47	9	6	15	6	-	6	6	3	9	42	35	77
	p/t	1	1	2	15	3	18	5	4	9	3	4	7	24	12	36
	Ext	-	1	1	-	-	-	-	-	-	-	-	-	-	1	1
Chisholm IT	f/t	8	9	17	14	17	31	21	29	50	130	127	257	173	182	355
	p/t	12	2	14	28	7	35	21	3	24	28	20	48	89	32	121
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Footscray IT	f/t	-	-	-	-	-	-	-	-	-	36	19	55	36	19	55
	p/t	-	2	2	-	-	-	-	-	-	16	7	23	16	9	25
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gippsland IAE	f/t	18	11	29	27	16	43	13	13	26	22	23	45	80	63	143
	p/t	3	2	5	-	-	-	-	1	1	1	-	1	4	3	7
	Ext	17	5	22	16	9	25	7	7	14	12	4	16	52	25	77

continued

Table 1 (cont'd)

YEAR		1980			1981			1982			1983			TOTAL 1980–1983		
COLLEGES OF ADVANCED EDUCATION		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Hawthorn IE	f/t	259	11	270	191	15	206	160	5	165	136	3	139	746	34	780
	p/t	-	-	-	-	-	-	1	-	1	-	-	-	1	-	1
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Institute of Catholic Education	f/t	6	10	16	6	9	15	3	5	8	4	9	13	19	33	52
	p/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lincoln Institute of Health Sciences	f/t	4	15	19	3	9	12	6	12	18	1	23	24	14	59	73
	p/t	1	-	1	-	-	-	-	1	1	-	1	1	1	2	3
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Melbourne CAE	f/t	-	21	21	18	60	78	14	50	64	23	61	84	55	192	247
	p/t	-	-	-	-	1	1	-	1	1	3	1	4	3	3	6
	Ext	-	-	-	-	-	-	-	1	1	-	-	-	-	1	1
Phillip IT	f/t	77	78	155	51	91	142	43	40	83	50	68	118	221	277	498
	p/t	18	8	26	18	5	23	18	4	22	13	6	19	67	23	90
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Swinburne IT	f/t	2	4	6	12	4	16	62	56	118	7	5	12	83	69	152
	p/t	11	3	14	9	5	14	120	67	187	7	4	11	147	79	226
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Victoria College	f/t	12	21	33	27	52	79	37	65	102	22	27	49	98	165	263
	p/t	8	8	16	17	5	22	27	19	46	14	4	18	66	36	102
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

continued

Table 1 (cont'd)

YEAR		1980			1981			1982			1983			TOTAL 1980–1983		
COLLEGES OF ADVANCED EDUCATION		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Victorian College of the Arts	f/t	1	4	5	-	-	-	1	6	7	1	-	1	3	10	13
	p/t	2	-	2	-	-	-	-	-	-	-	-	-	2	-	2
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Victorian College of Pharmacy	f/t	-	-	-	-	2	2	-	-	-	-	-	-	-	2	2
	p/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Warrnambool IAE	f/t	6	3	9	2	3	5	2	1	3	4	-	4	14	7	21
	p/t	-	1	1	-	-	-	-	1	1	-	-	-	-	2	2
	Ext	8	6	14	10	9	19	14	7	21	16	7	23	48	29	77
Queensland																
Brisbane CAE	f/t	47	18	65	46	10	56	52	15	67	52	9	61	197	52	249
	p/t	35	16	51	19	9	38	13	9	22	9	11	20	86	45	131
	Ext	56	5	61	32	4	36	11	1	12	5	-	5	104	10	114
Capricornia IAE	f/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	p/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Darling Downs IAE	f/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	p/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Queensland Agricultural College	f/t	-	-	-	1	-	1	1	-	1	-	-	-	2	-	2
	p/t	-	-	-	-	-	-	-	-	-	6	-	6	6	-	6
	Ext	-	-	-	-	-	-	-	-	-	4	2	6	4	2	6

continued

Table 1 (cont'd)

YEAR		1980			1981			1982			1983			TOTAL 1980–1983		
COLLEGES OF ADVANCED EDUCATION		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Queensland Conservatorium of Music	f/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	p/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Townsville CAE	f/t	-	3	3	-	1	1	1	-	1	4	-	4	5	4	9
	p/t	2	-	2	1	1	2	-	1	1	-	1	1	3	3	6
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Australia																
South Australian CAE	f/t	4	1	5	1	4	5	4	8	12	8	8	16	17	21	38
	p/t	12	10	22	21	3	24	35	14	49	49	6	55	117	33	150
	Ext	34	5	39	70	13	83	11	5	16	20	6	26	135	29	164
Roseworthy Agricultural	f/t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	p/t	-	-	-	-	-	-	-	-	-	1	-	1	1	-	1
	Ext	-	-	-	-	-	-	-	-	-	2	-	2	2	-	2
Western Australia																
Western Australian CAE	f/t	15	14	29	15	12	27	7	15	22	18	24	42	55	65	120
	p/t	56	8	64	53	10	63	81	42	123	58	50	108	248	110	358
	Ext	7	-	7	-	-	-	3	2	5	1	-	1	11	2	13
Tasmania																
Tasmanian CAE	f/t	10	3	13	3	2	5	19	5	24	15	6	21	47	16	63
	p/t	16	6	22	13	3	16	46	14	60	10	4	14	85	27	112
	Ext	19	5	24	17	7	24	20	5	25	16	11	27	72	28	100

continued

Table 1 (cont'd)

YEAR		1980			1981			1982			1983			TOTAL 1980–1983		
COLLEGES OF ADVANCED EDUCATION		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Australian Capital Territory																
Canberra CAE	f/t	12	5	17	9	7	16	23	16	39	22	10	32	66	38	104
	p/t	70	28	98	60	20	80	34	31	65	30	22	52	194	101	295
	Ext	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northern Territory																
Darwin CC	f/t									8			12			20
Total										23			32			55
TOTAL	f/t	599	377	976	545	442	987	542	435	977	694	568	1262	2380	1822	4202
	p/t	464	241	705	481	160	641	792	327	1119	370	205	575	2107	933	3040
	Ext	233	73	306	313	151	464	261	109	370	271	106	377	1078	439	1517
ALL STUDENTS		1296	691	1987	1339	753	2092	1595	871	2466	1335	879	2214	5565	3194	8759

Appendix I—Table 2

COMMENCING STUDENTS ENROLLED IN OTHER COLLEGES OF ADVANCED EDUCATION WHO HELD TECHNICAL COLLEGE QUALIFICATIONS AS THEIR HIGHEST QUALIFICATION BY COLLEGE OF ADVANCED EDUCATION FOR 1980–1983 (ABSOLUTE NUMBER AND PERCENTAGE OF TOTAL COMMENCING STUDENTS)

YEAR	1980			1981			1982			1983			TOTAL 1980–1983		
COLLEGES OF ADVANCED EDUCATION	TAFE	Total	%	TAFE	Total	%	TAFE	Total	%	TAFE	Total	%	TAFE	Total	%
New South Wales															
Armidale CAE	3	728	0.41	8	790	1.01	6	794	0.76	5	791	0.63	22	3103	0.71
Catholic College of Education, Sydney	0	626	0	0	819	0	1	786	0.13	6	990	0.61	7	3221	0.22
Cumberland College of Health Sciences	3	617	0.49	8	659	1.21	6	691	0.87	0	721	0	17	2688	0.63
Hawkesbury AC	6	424	1.42	47	362	12.98	1	385	0.26	24	418	5.74	78	1589	4.91
Kuring-gai CAE	55	1383	3.98	48	1468	3.27	60	1509	3.98	83	1391	5.97	246	5751	4.28
Macarthur IAE	21	297	7.07	17	339	5.01	18	424	4.25	44	738	5.96	100	1798	5.56
Mitchell CAE	76	1053	7.22	114	1496	7.62	132	1515	2.11	107	1337	8.00	429	5401	7.94
Nepean CAE	62	745	8.32	57	644	8.85	0	639	0	37	672	5.51	156	2700	5.78
Newcastle CAE	13	1073	1.21	134	1182	11.34	79	1219	6.48	55	1023	5.38	281	4497	6.25
NSW Conservatorium of Music	0	159	0	0	179	0	1	159	0.63	1	175	0.57	2	672	0.30
Northern Rivers	21	507	4.14	25	552	4.53	23	472	4.87	32	479	6.68	101	2010	5.02

continued

Appendix I—Table 2 (cont'd)

YEAR	1980			1981			1982			1983			TOTAL 1980–1983		
COLLEGES OF ADVANCED EDUCATION	TAFE	Total	%	TAFE	Total	%	TAFE	Total	%	TAFE	Total	%	TAFE	Total	%
Orange AC	5	160	3.13	4	129	3.10	21	198	10.61	25	189	13.23	55	676	8.14
Riverina CAE	92	1800	5.11	106	1979	5.36	178	1883	9.45	191	2228	8.57	567	7890	7.19
Sydney College of the Arts	11	250	4.40	26	345	7.54	16	337	4.75	15	260	5.77	68	1192	5.70
Sydney CAE	257	2380	10.80	129	2432	5.30	365	2781	13.12	100	2329	4.29	851	9922	8.58
Wollongong IE	3	392	0.77	1	470	0.21	22	529	4.16	0	581	0	26	1972	1.32
Victoria															
Ballarat CAE	90	746	12.06	90	760	11.84	14	877	1.60	8	968	0.83	202	3351	6.03
Bendigo CAE	50	650	7.69	33	930	3.55	15	786	1.91	16	841	1.90	114	3207	3.55
Chisholm IT	31	2302	1.35	66	2203	3.00	74	2484	2.98	305	2354	12.96	476	9343	5.09
Footscray IT	2	1003	0.20	0	1214	0	0	1240	0	78	1905	4.09	80	5362	1.49
Gippsland IAE	56	1240	4.52	68	1047	6.49	41	1074	3.82	62	1221	5.08	227	4582	4.95
Hawthorn IE	270	1084	24.91	206	1809	11.39	166	1277	13.00	139	674	20.62	781	4844	16.12
Institute of Catholic Education	16	523	1.15	15	625	2.40	8	769	1.04	13	650	2.00	52	2567	2.03
Lincoln Institute	20	615	3.25	12	637	1.88	19	682	2.79	25	803	3.11	76	2737	2.78
Melbourne CAE	21	2340	0.90	79	2016	3.92	66	1651	4.00	88	1886	4.67	254	7893	3.22

continued

Appendix I—Table 2 (cont'd)

YEAR	1980			1981			1982			1983			TOTAL 1980–1983		
COLLEGES OF ADVANCED EDUCATION	TAFE	Total	%	TAFE	Total	%	TAFE	Total	%	TAFE	Total	%	TAFE	Total	%
Phillip IT	181	1434	12.62	165	1623	10.17	105	1593	6.59	137	1796	7.63	588	6446	9.12
Swinburne	20	1850	1.08	30	1906	0.16	305	2213	13.78	23	1897	1.21	378	7866	4.81
Victoria College	49	3396	1.44	101	3117	3.24	148	2685	5.51	67	2852	2.35	365	12050	3.03
Victorian College of Art	7	197	3.55	0	236	0	7	233	3.00	1	233	0.43	15	899	1.67
Victorian College of Pharmacy	0	153	0	2	126	1.59	0	133	0	0	168	0	2	580	0.34
Warrnambool IAE	24	668	3.59	24	661	3.63	25	607	4.12	27	722	3.74	100	2658	3.76
Queensland															
Brisbane CAE	177	3137	5.64	130	3216	4.04	101	3018	3.35	86	3043	2.83	494	12414	3.98
Capricornia IAE	0	1025	0	0	1075	0	0	1013	0	0	1118	0	0	4231	0
Darling Downs IAE	0	2027	0	0	1681	0	0	1698	0	0	1926	0	0	7332	0
Queensland AC	0	308	0	1	319	0.31	1	362	0.27	12	450	2.67	14	1439	0.97
Queensland Conservatorium of Music	0	85	0	0	81	0	0	85	0	0	87	0	0	338	0
Townsville CAE	5	455	1.10	3	427	0.70	2	384	0.52	5	417	1.20	15	1683	0.89

continued

Appendix I—Table 2 (cont'd)

YEAR	1980			1981			1982			1983			TOTAL 1980–1983		
COLLEGES OF ADVANCED EDUCATION	TAFE	Total	%	TAFE	Total	%	TAFE	Total	%	TAFE	Total	%	TAFE	Total	%
South Australia															
South Australian CAE	66	4769	1.41	112	5241	2.14	77	3970	1.94	97	4059	2.39	352	18039	1.95
Roseworthy AC	0	147	0	0	180	0	0	145	0	3	224	1.34	3	696	0.43
Western Australia															
Western Australian CAE	100	3325	3.01	90	3298	2.73	150	3492	4.30	151	3636	4.15	491	13751	3.75
Tasmania															
Tasmanian CAE	59	977	6.04	45	824	5.46	109	897	12.15	62	1257	4.93	275	3955	6.95
Australian Capital Territory															
Canberra CAE	115	2173	5.29	96	2075	4.63	104	2158	4.82	84	2684	3.13	399	9090	4.39
Northern Territory															
Darwin CC	-	-	-	-	-	-	23	322	7.14	12	468	2.56	35	790	4.43
ALL STUDENTS	1987	49223	4.40	2092	51172	4.09	2489	50169	4.96	2226	52661	4.23	8794	203225	4.33
	$\bar{x}$ = 3.79 S.D. ± 4.77			$\bar{x}$ = 3.82 S.D. ± 3.72			$\bar{x}$ = 3.83 S.D. ± 3.95			$\bar{x}$ = 4.02 S.D. ± 4.13			$\bar{x}$ = 3.91 S.D. ± 3.24		

$\bar{x}$ = mean

S.D. = standard deviation

Appendix I—Table 3

FULL-TIME COMMENCING STUDENTS ENROLLED IN OTHER COLLEGES OF ADVANCED EDUCATION WHO HELD TECHNICAL COLLEGE QUALIFICATIONS AS THEIR HIGHEST QUALIFICATION BY COLLEGE OF ADVANCED EDUCATION FOR 1980-1983 (ABSOLUTE NUMBER AND PERCENTAGE OF TOTAL FULL-TIME COMMENCING STUDENTS)

YEAR	1980			1981			1982			1983			TOTAL 1980-1983		
COLLEGES OF ADVANCED EDUCATION	FST	FTS	%	FST	FTS	%	FST	FTS	%	FST	FTS	%	FST	FTS	%
New South Wales															
Armidale CAE	2	186	1.08	5	159	3.14	1	190	0.53	0	191	0	8	726	1.10
Catholic College of Education, Sydney	0	389	0	0	377	0	0	478	0	6	534	1.12	6	1778	0.34
Cumberland College of Health Sciences	2	530	0.38	5	555	0.90	6	526	1.14	0	488	0	13	2099	0.62
Hawkesbury AC	0	288	0	19	285	6.67	1	303	0.33	18	348	5.17	38	1224	3.10
Kuring-gai CAE	10	854	1.17	14	840	1.67	19	954	1.99	18	890	2.02	61	3538	1.72
Macarthur IAE	16	172	9.30	11	203	5.42	9	216	4.17	15	339	4.42	51	930	5.48
Mitchell CAE	8	332	2.40	6	311	1.93	15	425	3.53	14	488	2.87	43	1556	2.76
Nepean CAE	5	270	1.85	11	302	3.64	0	345	0	7	392	1.79	23	1309	1.76
Newcastle CAE	6	536	1.12	2	586	0.34	16	647	2.47	37	569	6.50	61	2338	2.61

continued

Appendix I—Table 3 (cont'd)

YEAR	1980			1981			1982			1983			TOTAL 1980–1983		
COLLEGES OF ADVANCED EDUCATION	FST	FTS	%	FST	FTS	%	FST	FTS	%	FST	FTS	%	FST	FTS	%
NSW Conservatorium of Music	0	130	0	0	162	0	1	159	0.63	1	171	0.58	2	622	0.32
Northern Rivers CAE	9	314	2.87	14	346	4.05	9	333	2.70	23	362	6.35	55	1355	4.06
Orange AC	4	118	3.39	3	105	2.86	0	114	0	4	113	3.53	11	450	2.44
Riverina CAE	9	589	1.53	11	533	2.06	18	464	3.88	20	557	3.59	58	2143	2.71
Sydney College of the Arts	11	248	4.44	24	325	7.38	13	271	4.80	12	198	6.06	60	1042	5.76
Sydney CAE	51	1444	3.53	28	1371	2.04	34	1437	0.97	97	1523	6.37	210	5775	3.64
Wollongong IE*	3	188	1.60	1	194	0.52	14	233	6.01	0	209	0	18	824	2.18
Victoria															
Ballarat CAE	81	508	15.95	78	496	15.73	5	555	0.90	4	611	0.65	168	2170	7.74
Bendigo CAE	47	379	12.40	15	510	2.94	6	532	1.13	9	587	1.53	77	2008	3.83
Chisholm IT	17	1061	1.60	31	1108	2.80	50	1373	3.64	257	1298	19.80	355	4840	7.33
Footscray IT	0	601	0	0	723	0	0	794	0	55	1209	4.55	55	3327	1.65
Gippsland IAE	29	235	12.34	43	193	22.28	26	191	13.61	45	244	18.44	143	863	16.57

continued

Appendix I—Table 3 (cont'd)

YEAR	1980			1981			1982			1983			TOTAL 1980–1983		
COLLEGES OF ADVANCED EDUCATION	FST	FTS	%	FST	FTS	%	FST	FTS	%	FST	FTS	%	FST	FTS	%
Hawthorn IE	270	574	47.04	206	394	52.28	165	356	46.35	139	338	41.12	780	1662	46.93
Institute of Catholic Education	16	398	4.02	15	405	3.95	8	451	1.77	13	386	3.37	52	1640	3.17
Lincoln Institute	19	534	3.56	12	462	2.60	18	527	3.42	24	547	4.39	73	2070	3.53
Melbourne CAE	21	1241	1.69	78	1141	6.84	64	1018	6.29	84	1115	7.53	247	4515	5.47
Phillip IT	155	852	18.19	142	950	14.95	83	966	8.59	118	1095	10.78	498	3863	12.89
Swinburne IT	6	789	0.76	16	890	1.80	118	1117	10.56	12	1028	1.17	152	3824	3.97
Victoria College	33	1572	2.10	79	1479	5.34	102	1206	8.46	49	1493	3.28	263	5750	4.57
Victorian College of Art	5	171	2.92	0	186	0	7	215	3.26	1	212	0.47	13	784	1.66
Victorian College of Pharmacy	0	142	0	2	113	1.77	0	131	0	0	132	0	2	518	0.39
Warrnambool IAE	9	136	6.62	5	160	3.13	3	132	2.27	4	260	1.54	21	688	3.05
Queensland															
Brisbane CAE	65	1517	4.28	56	1644	3.41	67	1712	3.91	61	2001	3.05	249	6874	3.62
Capricornia IAE	0	326	0	0	358	0	0	311	0	0	350	0	0	1345	0

continued

Appendix I—Table 3 (cont'd)

YEAR	1980			1981			1982			1983			TOTAL 1980–1983		
COLLEGES OF ADVANCED EDUCATION	FST	FTS	%	FST	FTS	%	FST	FTS	%	FST	FTS	%	FST	FTS	%
Darling Downs IAE	0	533	0	0	536	0	0	525	0	0	741	0	0	2335	0
Queensland AC	0	307	0	1	318	0.31	1	337	0.30	0	353	0	2	1315	0.15
Queensland Conservatorium of Music	0	84	0	0	80	0	0	83	0	0	87	0	0	334	0
Townsville CAE	3	169	1.78	1	213	0.47**	1	227	0.44	4	265	1.51	9	874	1.03
South Australia															
South Australian CAE	5	1775	0.28	5	1734	0.29	12	1728	0.69	16	1772	0.90	38	7009	0.54
Roseworthy AC	0	142	0	0	176	0	0	133	0	0	188	0	0	639	0
Western Australia															
Western Australian CAE	29	1446	2.01	27	1524	1.77	22	1428	1.54	42	1744	2.41	120	6142	1.95
Tasmania															
Tasmanian CAE	13	512	2.54	5	288	1.74	24	318	7.55	21	457	4.60	63	1575	4.00

continued

Appendix I—Table 3 (cont'd)

YEAR	1980			1981			1982			1983			TOTAL 1980–1983		
COLLEGES OF ADVANCED EDUCATION	FST	FTS	%	FST	FTS	%	FST	FTS	%	FST	FTS	%	FST	FTS	%
Australian Capital Territory															
Canberra CAE	17	897	1.90	16	918	1.74	39	1107	3.52	32	1451	2.21	104	4373	2.38
Northern Territory															
Darwin CC	-	-	-	-	-	-	8	130	6.15	12	161	7.45	20	291	6.87
ALL STUDENTS	976	23489	4.16	987	23653	4.17	985	24698	3.99	1274	27497	4.63	4222	99337	4.25
	$\bar{x}$ = 4.30 S.D. ± 8.03			$\bar{x}$ = 4.56 S.D. ± 8.80			$\bar{x}$ = 3.90 S.D. ± 7.36			$\bar{x}$ = 4.44 S.D. ± 7.17			$\bar{x}$ = 4.28 S.D. ± 7.43		

FST = full-time commencing students enrolled in orther colleges of advanced education who held technical college qualifications

FTS = total number of full-time commencing students enrolled in other colleges of advanced education

* Wollongong Institute of Education became University of Wollongong Institute of Advanced Education in 1982.

** absorbed in James Cook University.

Appendix I—Table 4

PART-TIME COMMENCING STUDENTS ENROLLED IN OTHER COLLEGES OF ADVANCED EDUCATION COURSES WHO HELD TECHNICAL COLLEGE QUALIFICATIONS AS THEIR HIGHEST QUALIFICATION BY COLLEGE OF ADVANCED EDUCATION FOR 1980–1983 (ABSOLUTE NUMBER AND PERCENTAGE OF TOTAL PART-TIME COMMENCING STUDENTS)

YEAR	1980			1981			1982			1983			TOTAL 1980–1983		
COLLEGES OF ADVANCED EDUCATION	PST	PTS	%	PST	PTS	%	PST	PTS	%	PST	PTS	%	PST	PTS	%
New South Wales															
Armidale CAE	0	1	0	-	-	-	-	-	-	0	1	0	0	2	0
Catholic College of Education, Sydney	0	123	0	0	275	0	0	212	0	0	394	0	0	1004	0
Cumberland College of Health Sciences	1	72	1.39	3	104	2.88	0	165	0	0	233	0	4	574	0.70
Hawkesbury AC	6	82	7.32	5	20	25.00	0	26	0	3	20	15.00	14	148	9.46
Kuring-gai CAE	45	529	8.51	34	628	5.41	41	555	7.39	65	501	12.97	185	2213	8.36
Macarthur IAE	5	125	4.00	6	136	4.41	9	185	4.86	29	347	8.36	49	793	6.18
Mitchell CAE	11	136	8.09	14	156	8.97	19	118	16.10	7	120	5.83	51	530	9.62
Nepean CAE	57	475	12.00	46	342	13.45	0	294	0	30	280	10.71	133	1391	9.56
Newcastle CAE	7	364	1.92	60	213	28.17	60	298	20.13	17	218	7.80	144	1093	13.17

continued

Appendix I—Table 4 (cont'd)

YEAR	1980			1981			1982			1983			TOTAL 1980–1983		
COLLEGES OF ADVANCED EDUCATION	PST	PTS	%	PST	PTS	%	PST	PTS	%	PST	PTS	%	PST	PTS	%
NSW Conservatorium of Music	0	29	0	0	17	0	-	-	-	0	4	0	0	50	0
Northern Rivers CAE	4	99	4.04	6	79	7.59	6	75	8.00	2	57	3.51	18	310	5.81
Orange AC	-	-	-	0	3	0	0	4	0	0	3	0	0	10	0
Riverina CAE	12	278	4.32	16	294	5.44	20	279	7.17	23	368	6.25	71	1219	5.82
Sydney College of the Arts	0	2	0	2	20	10.00	3	66	4.55	3	62	4.84	8	150	5.33
Sydney CAE	206	877	23.49	101	1016	9.94	331	1304	25.38	3	806	0.37	641	4003	16.01
Wollongong IE	0	51	0	0	58	0	8	59	13.56	0	192	0	8	360	2.22
Victoria															
Ballarat CAE	9	238	3.78	12	264	4.55	9	322	2.80	4	357	1.12	34	1181	2.88
Bendigo CAE	2	245	0.82	18	374	4.81	9	231	3.90	7	236	2.97	36	1086	3.31
Chisholm IT	14	1241	1.13	35	1095	3.20	24	1111	2.16	48	1056	4.55	121	4503	2.69
Footscray IT	2	402	0.50	0	491	0	0	446	0	23	696	3.30	25	2035	1.23

continued

Appendix I—Table 4 (cont'd)

YEAR	1980			1981			1982			1983			TOTAL 1980-1983		
COLLEGES OF ADVANCED EDUCATION	PST	PTS	%	PST	PTS	%	PST	PTS	%	PST	PTS	%	PST	PTS	%
Gippsland IAE	5	45	11.11	0	54	0	1	41	2.44	1	57	1.75	7	197	3.55
Hawthorn IE	0	510	0	0	1415	0	1	921	0.11	0	336	0	1	3182	0.03
Institute of Catholic Education	0	100	0	0	220	0	0	318	0	0	264	0	0	902	0
Lincoln Institute	1	81	1.23	0	175	0	1	155	0.65	1	256	0.39	3	667	0.45
Melbourne CAE	0	805	0	1	729	0.14	1	513	0.19	4	636	0.63	6	2683	0.22
Phillip IT	26	582	4.47	23	673	3.42	22	627	3.51	19	701	2.71	90	2583	3.48
Swinburne IT	14	1061	1.32	14	1016	1.38	187	1096	17.06	11	869	1.27	226	4042	5.59
Victoria College	16	1705	1.11	22	1499	1.47	46	1285	3.58	18	1242	1.45	102	5731	1.78
Victorian College of Arts	2	26	7.69	0	50	0	0	18	0	0	21	0	2	115	1.74
Victorian College of Pharmacy	0	11	0	0	13	0	0	2	0	0	36	0	0	62	0
Warrnambool IAE	1	28	3.57	0	33	0	1	21	4.76	0	17	0	2	99	2.02
Queensland															
Brisbane CAE	51	1101	4.63	38	1094	3.47	22	928	2.37	20	725	2.76	131	3848	3.40

continued

Appendix I—Table 4 (cont'd)

YEAR	1980			1981			1982			1983			TOTAL 1980–1983		
COLLEGES OF ADVANCED EDUCATION	PST	PTS	%	PST	PTS	%	PST	PTS	%	PST	PTS	%	PST	PTS	%
Capricornia IAE	0	289	0	0	203	0	0	127	0	0	129	0	0	748	0
Darling Downs IAE	0	226	0	0	123	0	0	179	0	0	149	0	0	677	0
Queensland AC	0	1	0	0	1	0	0	25	0	6	40	15.00	6	67	8.96
Queensland Conservatorium of Music	0	1	0	0	1	0	0	2	0	-	-	-	0	4	0
Townsville CAE	2	100	2.00	2	93	2.15	1	67	1.49	1	50	2.00	6	310	1.94
South Australia															
South Australian CAE	22	1778	1.24	24	1759	1.36	49	1423	3.44	55	1388	3.96	150	6348	2.36
Roseworthy AC	0	5	0	0	4	0	0	12	0	1	18	5.56	1	39	2.56
Western Australia															
Western Australian CAE	64	1332	4.80	63	1455	4.33	123	1524	8.07	108	1392	7.76	358	5703	6.28
Tasmania															
Tasmanian CAE	22	250	8.80	16	252	6.35	60	342	17.54	14	335	4.18	112	1179	9.50

continued

Appendix I—Table 4 (cont'd)

YEAR	1980			1981			1982			1983			TOTAL 1980–1983		
Australian Capital Territory															
Canberra CAE	98	1276	7.68	80	1157	6.91	65	1051	6.18	52	1233	4.22	295	4717	6.25
ALL STUDENTS	705	16682	4.23	641	17604	3.64	1119	16427	6.81	575	15845	3.63	3040	66558	4.57
	$\bar{x}$ = 3.43 S.D. ± 4.70			$\bar{x}$ = 4.02 S.D. ± 6.24			$\bar{x}$ = 4.68 S.D. ± 6.47			$\bar{x}$ = 3.44 S.D. ± 4.17			$\bar{x}$ = 3.87 S.D. ± 4.00		

PST = part-time commencing students enrolled in other colleges of advanced education who held technical college qualifications

PTS = total number of part-time commencing students enrolled in other colleges of advanced education

Appendix I—Table 5

EXTERNAL COMMENCING STUDENTS ENROLLED IN OTHER COLLEGES OF ADVANCED EDUCATION COURSES WHO HELD TECHNICAL COLLEGE QUALIFICATIONS AS THEIR HIGHEST QUALIFICATION BY COLLEGE OF ADVANCED EDUCATION FOR 1980–1983 (ABSOLUTE NUMBER AND PERCENTAGE OF TOTAL EXTERNAL COMMENCING STUDENTS)

YEAR	1980			1981			1982			1983			TOTAL 1980–1983		
	EST	ETS	%	EST	ETS	%	EST	ETS	%	EST	ETS	%	EST	ETS	%
New South Wales															
Armidale CAE	1	541	0.18	3	631	0.48	5	604	0.83	5	599	0.83	14	2375	0.59
Catholic College of Education, Sydney	0	114	0	0	167	0	1	96	1.04	0	62	0	1	439	0.23
Cumberland College of Health Sciences	0	15	0	-	-	-	-	-	-	-	-	-	0	15	0
Hawkesbury AC	0	54	0	23	57	40.35	0	56	0	3	50	6.00	26	217	11.98
Kuring-gai CAE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Macarthur IAE	-	-	-	-	-	-	0	23	0	0	52	0	0	75	0
Mitchell CAE	57	585	8.62	94	1029	9.14	98	972	10.08	86	729	11.80	335	3315	10.11
Nepean CAE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Newcastle CAE	0	173	0	72	383	18.80	3	274	1.09	1	236	0.42	76	1066	7.13
NSW Conservatorium of Music	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

continued

YEAR	1980			1981			1982			1983			TOTAL 1980–1983		
	EST	ETS	%	EST	ETS	%	EST	ETS	%	EST	ETS	%	EST	ETS	%
Northern Rivers	8	94	8.51	5	127	3.94	8	64	12.50	7	60	11.67	28	345	8.12
Orange AC	1	42	2.38	1	21	4.76	21	80	26.25	21	73	28.77	44	216	20.37
Riverina CAE	71	933	7.61	79	1152	6.86	140	1140	12.28	148	1303	11.36	438	4528	9.67
Sydney College of the Arts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sydney CAE	0	59	0	0	45	0	0	40	0	-	-	-	0	144	0
Wollongong IE	0	153	0	0	218	0	0	237	0	0	180	0	0	788	0
Victoria															
Ballarat CAE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bendigo CAE	1	26	3.85	0	46	0	0	23	0	0	18	0	1	113	0.88
Chisholm IT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Footscray IT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gippsland IAE	22	960	2.29	25	800	3.13	14	842	1.66	16	920	1.74	77	3522	2.19
Hawthorn IE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Institute of Catholic Education	0	25	0	-	-	-	-	-	-	-	-	-	0	25	0
Lincoln Institute	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

continued

Appendix I—Table 5 (cont'd)

YEAR	1980			1981			1982			1983			TOTAL 1980–1983		
	EST	ETS	%	EST	ETS	%	EST	ETS	%	EST	ETS	%	EST	ETS	%
Melbourne CAE	0	294	0	0	146	0	1	120	0.83	0	135	0	1	695	0.14
Phillip IT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Swinburne IT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Victoria College	-	119	0	0	139	0	0	194	0	0	117	0	0	569	0
Victorian College of Arts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Victorian College of Pharmacy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Warrnambool IAE	14	504	2.78	19	468	4.06	21	454	5.29	23	445	5.17	77	1871	4.12
Queensland															
Brisbane CAE	61	519	11.75	36	478	7.53	12	378	3.17	5	317	1.58	114	1692	6.74
Capricornia IAE	0	410	0	0	514	0	0	575	0	0	639	0	0	2138	0
Darling Downs IAE	0	1268	0	0	1022	0	0	994	0	0	1036	0	0	4320	0
Queensland AC	-	-	-	-	-	-	-	-	-	6	57	10.53	6	57	10.53
Queensland Conservatorium of Music	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Townsville CAE	0	186	0	0	121	0	0	90	0	0	102	0	0	499	0

continued

Appendix I—Table 5 (cont'd)

YEAR	1980			1981			1982			1983			TOTAL 1980–1983		
	EST	ETS	%	EST	ETS	%	EST	ETS	%	EST	ETS	%	EST	ETS	%
South Australia															
South Australian CAE	39	1216	3.21	83	1748	4.75	16	819	1.95	26	899	2.89	164	4682	3.50
Roseworthy AC	-	-	-	-	-	-	-	-	-	2	18	11.11	2	18	11.11
Western Australia															
Western Australian CAE	7	547	1.27	0	319	0	5	540	0.93	1	500	0.20	13	1906	0.68
Tasmania															
Tasmanian CAE	24	215	11.16	24	284	8.45	25	237	10.55	27	465	5.81	100	1201	8.33
Australian Capital Territory															
Canberra CAE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL STUDENTS	306	9052	3.38	464	9915	4.68	370	8852	4.18	377	9012	4.18	1517	36831	4.12
	$\bar{x}$ = 2.72 S.D. ± 3.86			$\bar{x}$ = 5.10 S.D. ± 9.14			$\bar{x}$ = 3.84 S.D. ± 6.46			$\bar{x}$ = 4.57 S.D. ± 6.84			$\bar{x}$ = 4.31 S.D. ± 5.38		

EST = external commencing students enrolled in other colleges of advanced education who held technical college qualifications

ETS = total number of external commencing students enrolled in other colleges of advanced education

APPENDIX J

CATEGORY 7 STUDENTS ENROLLED IN SOUTH AUSTRALIAN HIGHER EDUCATION INSTITUTIONS BY DISCIPLINE AS A PROPORTION OF TOTAL ENROLMENTS, BY INSTITUTION, 1980-1984

YEAR	1980			1981			1982			1983			1984		
Institution by Discipline	7	Total	%	7	Total	%	7	Total	%	7	Total	%	7	Total	%
SCIENCE															
SA CAE	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-
Roseworthy Agr College	11	132	8.33	9	156	5.77	9	115	7.83	27	182	14.84	15	158	9.49
SAIT															
Adelaide & The Levels Campuses	-	81	-	1	90	1.11	3	100	3.00	2	74	2.70	-	105	-
Whyalla Campus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Flinders University	8	198	4.04	7	194	3.61	8	201	3.98	11	358	3.07	17	356	4.78
Adelaide University	2	500	0.40	3	523	0.57	5	513	0.97	-	445	-	2	469	0.43
Sub-Total	21	911	2.31	20	963	2.08	25	945	2.65	40	1059	3.78	34	1088	3.13

continued

YEAR	1980			1981			1982			1983			1984		
Institution by Discipline	♀	Total	♀	♀	Total	♀	♀	Total	♀	♀	Total	♀	♀	Total	♀
ENGINEERING															
SA CAE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roseworthy Agr College	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAIT															
Adelaide & The Levels Campuses	34	346	9.83	39	418	9.33	33	489	6.75	28	439	6.38	19	422	4.50
Whyalla Campus	1	23	4.35	-	24	-	-	37	-	-	33	-	-	36	-
Flinders University	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Adelaide University	1	244	0.41	3	255	1.18	4	270	1.48	1	241	0.41	4	218	1.83
Sub-Total	36	613	5.87	42	697	6.03	37	796	5.32	29	713	4.07	23	676	3.40

continued

YEAR	1980			1981			1982			1983			1984		
Institution by Discipline	♀	Total	♀	♀	Total	♀	♀	Total	♀	♀	Total	♀	♀	Total	♀
BUSINESS STUDIES															
SA CAE	-	-	-	-	-	-	62	133	46.61	53	124	42.74	68	224	30.36
Roseworthy Agr College	-	-	-	-	-	-	-	-	-	-	-	-	8	28	28.57
SAIT															
Adelaide & The Levels Campuses	78	564	13.83	80	651	12.29	109	755	14.44	108	623	17.33	108	625	17.28
Whyalla Campus	2	21	9.52	-	19	-	-	14	-	-	21	-	1	27	3.70
Flinders University	-	-	-	-	-	-	-	16	-	-	25	-	-	31	-
Adelaide University	9	188	4.79	9	215	4.19	9	190	4.74	5	181	2.76	6	179	3.35
Sub-Total	89	773	11.51	89	885	10.06	180	1108	16.25	166	974	17.04	191	1114	17.15

continued

YEAR	1980			1981			1982			1983			1984		
Institution by Discipline	7	Total	%	7	Total	%	7	Total	%	7	Total	%	7	Total	%
ART AND DESIGN															
SA CAE	47	223	21.08	52	226	23.01	70	277	25.27	90	295	30.51	69	341	20.23
Roseworthy Agr College	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAIT															
Adelaide & The Levels Campuses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Whyalla Campus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Flinders University	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Adelaide University	2	44	4.55	1	49	2.04	-	47	-	4	55	7.27	3	46	6.52
Sub-Total	49	267	18.35	53	275	19.27	70	324	16.51	94	350	26.86	72	387	18.60

continued

YEAR	1980			1981			1982			1983			1984		
Institution by Discipline	♀	Total	%	♀	Total	%	♀	Total	%	♀	Total	%	♀	Total	%
OTHERS															
SA CAE	298	1826	16.32	266	1476	18.02	322	1512	21.30	447	1708	26.17	608	2217	27.42
Roseworthy Agr College	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SAIT															
Adelaide & The Levels Campuses	79	491	16.09	79	459	17.21	76	480	15.83	95	518	18.34	107	490	21.84
Whyalla Campus	3	12	25.00	4	14	28.57	-	†	-	4	12	33.33	†	16	43.75
Flinders University	64	691	9.26	75	615	12.20	104	658	15.81	97	721	13.45	170	838	20.33
Adelaide University	24	885	2.71	34	888	3.83	44	868	5.07	29	849	3.42	39	866	3.35
Sub-Total	468	3905	11.98	458	3452	13.27	546	3525	15.49	671	3763	17.83	921	4425	20.81
TOTAL	663	6469	10.25	662	6272	10.55	858	6698	12.81	1001	6904	14.50	1241	7690	16.13